

ARCHITECTURAL RECORD



FEBRUARY 1950



House of New Ideas

FOR PRODUCTS
AND SALES

Flintkote employs experienced technicians... Research Specialists who spend every working day tracking down new facts on materials and methods that can improve or broaden Flintkote's wide line of products for industry.

Housed in 24 separate, efficiently equipped laboratories... in one of the most modern buildings in the country... these technicians set the pace for Flintkote plants from coast to coast. This assures better products and better results consistent with lowest possible costs... for you.

These researchers understand what makes business "tick," too. And they accept new product requirements as a recurring challenge. Also, the quality of our materials that have been in use for decades is carefully checked for today's applications.

So, if you are a user, or a potential user of Flintkote Industrial Products for construction, manufacturing or converting, remember that these trained specialists are at your service, to help find the solution to your problems. Full scale testing and pilot production methods are available under one roof. And, they'll follow through in your own plant if you wish.

Whether your requirements are coatings, adhesives, binders, floorings... asphalt, rubber or resin compounds... Automotive, Marine, Railroad, Construction, Building Maintenance products... see what we have now and can offer you for the future.

THE FLINTKOTE COMPANY
Industrial Products Division
30 Rockefeller Plaza, New York 20, N. Y.

Atlanta • Boston • Chicago Heights • Detroit • Los Angeles
New Orleans • Washington • Toronto • Montreal



FLINTKOTE

Products for Industry



Testing effective coverage of asphalt coatings. The metal plate with coating is grounded and a charge is placed in the metal bristles of the brush. Even the smallest rupture in the film produces a visible spark, indicating incomplete protection.



Among Flintkote's many products is a line of asphaltic spray-on sound deadeners to quiet metal vibration noises. In a specially-built sound-proof room, an electronic device measures the ability of various coatings to meet rigid specifications.



Summer and Winter climate, rain and burning heat are produced in the Research Laboratory. This Twin-Arc Weather-Ometer provides accurate control of accelerated weathering tests. Products designed for exposure must survive for many years.



This small mill is used to break down various rubber materials to the right consistency for use in new products or processes. Full size operation follows in the production of versatile fluid rubber and rubber-like adhesives, coatings and the like.

ARCHITECTURAL RECORD (Vol. 107, No. 2, February, 1950) is published monthly by F. W. Dodge Corp., 10 Ferry Street, Concord, N. H., with editorial and executive offices at 119 W. 40th St., New York 18, N. Y. \$4.50 per year; Foreign, \$6.50.

Entered as second-class matter at the Post Office, Concord, N. H., March 16, 1946, under the Act of March 3, 1879.

CONCRETING 84 FLOORS IN 65 WORKING DAYS

Miracle? No—It's KNOW-HOW!



TIMETABLE OF ONE UNIT AT EASTCHESTER



A crew assembles column forms, then moves to next building.

Next crew erects beam forms—each crew trained in its own job.

Placing slab forms and layout for mechanical trades.

Setting reinforcing steel and installing pipe work.



June 17, 1949
Concreting second floor—other crews on respective cycles.



July 29, 1949
Concreting roof (9th floor)—84 floors in 65 working days!

NEW YORK CITY HOUSING AUTHORITY: EASTCHESTER HOUSES, Bronx, N.Y.

Architects: HARRISON & ABRAMOVITZ

Engineers: SEELYE, STEVENSON & VALUE

Ready Mix 'Incor' Concrete: COLONIAL SAND & STONE CO., Inc.

General Contractor: CORBETTA CONSTRUCTION CO., INC.
all of New York City



LONE STAR CEMENTS COVER THE ENTIRE CONSTRUCTION FIELD

LONE STAR CEMENT CORPORATION

Offices: ALBANY • BETHLEHEM, PA. • BIRMINGHAM • BOSTON
CHICAGO • DALLAS • HOUSTON • INDIANAPOLIS • JACKSON, MISS.
KANSAS CITY, MO. • NEW ORLEANS • NEW YORK • NORFOLK
ST. LOUIS • PHILADELPHIA • WASHINGTON, D.C.

LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST
CEMENT PRODUCERS: 15 MODERN MILLS, 27,500,000 BARRELS ANNUAL CAPACITY



It was midnight some 175 years ago that a man rode through the countryside calling his neighbors to arms.

Freedom was at stake.

History with deadly finality records the outcome of the struggle set off by that ride—a struggle that ended in freedom for all the people of this country—a freedom we take too lightly today.

Maybe it's because 175 years is a long time and none of us can remember that far back—maybe it's because we have gotten used to this thing called freedom—maybe it's because we have had it so long we can't imagine life without it—maybe we believe we just cannot lose it.

But we can!

Today, the threat against the freedom of the American people is as great as it was that memorable night 175 years ago. In some sense greater. Guns do not threaten us—not yet at least—but an idea, a plan, artfully disguised, promises us the "secure" life.

What will it cost? Not much—just our freedom.

Now, let's forego all the high sounding language and get down to cases. What threatens our freedom?

The threat is two-fold . . . from the outside and from within. It isn't hard to identify the danger from the outside. Some twenty years ago, the leaders of Communism and Socialism brought their threats into sharp focus when they declared their operating policies for the future. Both contained a simple philosophy. Bore from within—take a little at a time. Usurp high office—guide the evolution until it becomes complete.

Has any of that happened?

The Communist trials in our country have been most revealing. Every day the press and radio tell us of new infiltration into high places. Nor have the ranks of labor escaped.

What about the inside?

That can easily be answered by another question. Do the American people have as much freedom of use of the money they earn as they did ten years ago? They do not! More people surrender a larger part of their money for tax use than ever before in history. More restrictions curb more people than ever before. More compulsion over the entire populace is advocated. It is a mounting trend becoming more inclusive every year. All of this is offered under the glib promise of liberating man from economic servitude—of a planned life—a total welfare.

So, we have the two threats . . . one from the outside and one from within.

It is doubtful that the American people are fearful that Communism will take over our country in the foreseeable future. It is doubtful too that they are unduly alarmed that Socialism as a method of government will replace our government.

But, what they do not understand is that a creeping Socialistic pattern is spreading itself from within—that it can advance to a point from which there can be no retreat. Because this Socialistic pattern moves forward a little at a time, it is not spectacular enough to be recognized for the dangerous thing it is. It is so easy to accept glittering promises—broad generalities, that mask the eventual result.

So, what is to be done about it?

We believe the state of the nation calls for a Command Performance from Business—a performance to stop this creeping Socialistic pattern which threatens the freedom of all.

Why does business get the call? There are two reasons.

First, business should do this job because of its obligation to people. That is not a new contention at Ceco. For three years, Ceco has been advancing the thought that the prosperity and security of our nation are tied unremittingly to a four letter word W-O-R-K. Ceco has said and still says management must work *more* at managing. We believe this job is the most important task in the over-all concept of management. It is

Encouraging American Business



up to alert management to provide real security in the present, as well as the future, to prove that responsibility for economic welfare belongs in private, not in public hands.

The second reason is that business—business men—are the best qualified for the job because American business knows most about selling. Businesses grow because business men sell their product. Is merchandise more important than the system which produced it? Isn't the system worthy of our best selling talents too? Yes... Business must and should sell the idea that real security and freedom for all are possible only under a virile free enterprise system.

Business must expose the alluring misrepresentations that spawn the myth "you can get something for nothing." It must boldly proclaim the simple truism that welfare projects cost money—cost the people their own money. For government has no money except that which is given it by the people through taxes. It must show that excessive taxation is creating a competition to industry which is challenging its right to lead—its right to guarantee economic freedom to people. It must question the cost which could be more than money. Unchecked, taxes can bankrupt the people, bankrupt business, thus making it impossible for individuals acting in private capacities—for business, through free enterprise management—to provide jobs, improve working conditions, assure real security.

It was protest against excessive taxation that occasioned the midnight ride 175 years ago. Now, as then, the same danger threatens.

Yes, freedom is at stake!

Business must create a crusading attitude toward free enterprise. Here the problem is not simple. For lately, the people are taking lightly our system of private endeavor which has had a moving influence on life around the world and

given us the highest living standards ever. They are "going along" thinking little of where it leads. They are not yet alarmed. Therefore, *unreserved* belief in that which we so casually call the American Way of Life must practically be revived. New vigor must fire *appreciation* of the system of individual effort and reward. There must be *reaffirmation* of faith in the dignity of man, in the real security to be found only in the individual acting in self-interest guided by conscience and a sense of fair play. All the people must be awakened. There must be 150 million *individual crusades* in this country, acting in concert, to keep the American Way of Life vital.

Business men must light the fire of a passionate belief within all the people—a belief in our way of life that burns brighter than any fanatical faith in the destiny of any other system.

Once the people know the danger, once their enthusiasm for incentive living reaches crusading fervor, they will know how to act. They will see through the will-o'-the-wisp promises of an inexhaustible public purse. They will recognize the fallacy of "something for nothing." Their "horse-sense" will renounce it. But to bring all this about, business men must become vocal. Each business must inform its own people. From little companies employing only a few, to big corporations employing many thousands. This program can succeed. The drift toward public dependency can be stopped but business men must be articulate and act decisively.

Mr. Chairman of the Board, Mr. President of Industry, Vice Presidents, Managers, yes—all of us—must get off of our pants and into the plants. We must meet with the people... talk with the people... work with the people. This isn't something that can be done by writing a check!

Let's accept this call for a Command Performance now! Today!! This very minute!!!

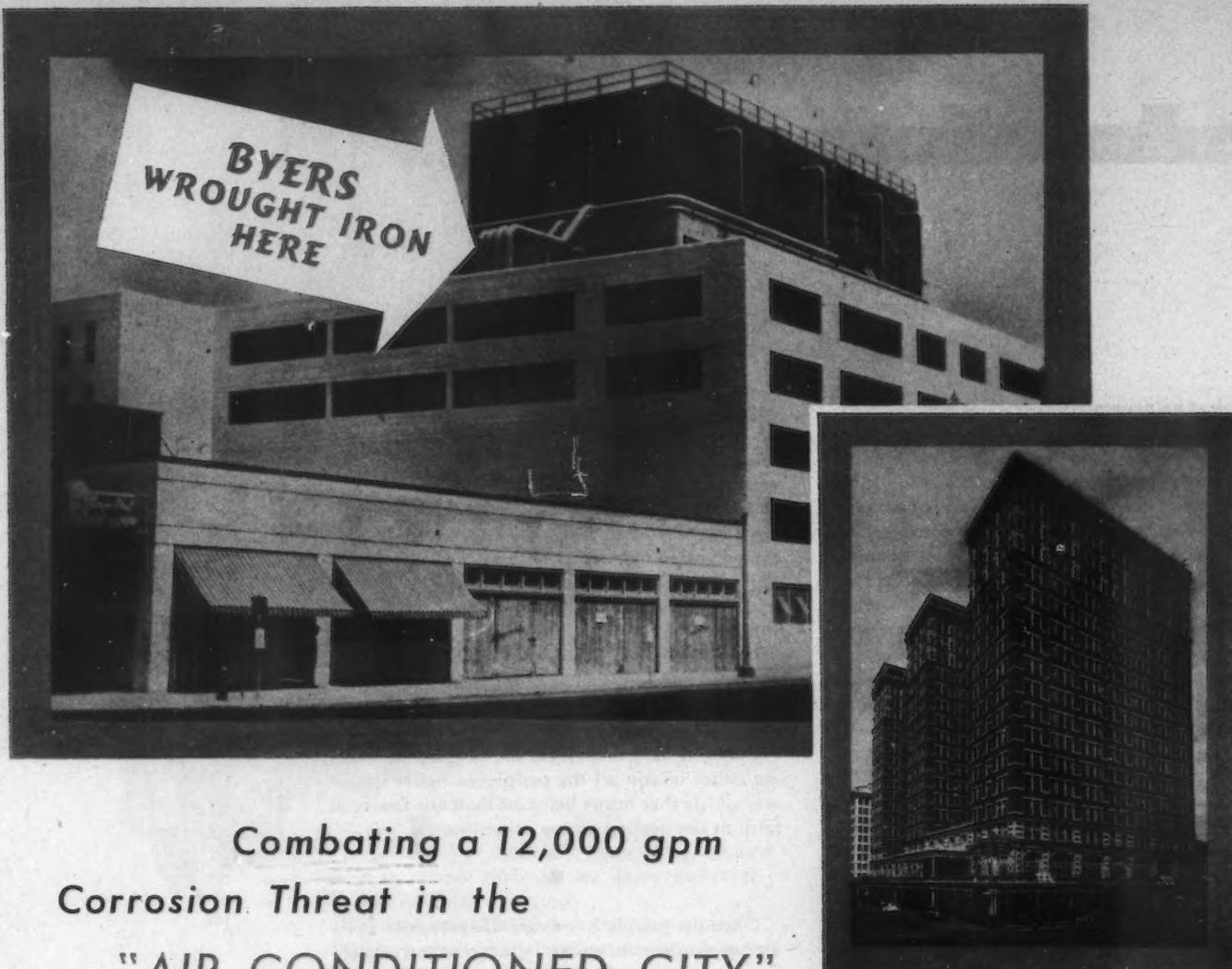
**CECO
STEEL**

STEEL WINDOWS AND DOORS • METAL SCREENS • ALUMINUM STORM WINDOWS • COMBINATION WINDOWS AND DOORS • METAL LATH • STEELFORMS • REINFORCING STEEL • STEEL JOISTS AND ROOF DECK • ROOFING PRODUCTS

CECO STEEL PRODUCTS CORPORATION

GENERAL OFFICES: 5601 West 26th Street, Chicago 50, Illinois

Offices, warehouses and fabricating plants in principal cities



Combating a 12,000 gpm Corrosion Threat in the "AIR-CONDITIONED CITY"

To completely air-condition the 1000-room Rice Hotel at Houston, Texas, 12,000 gallons of water per minute must be circulated between the engine room and the giant cooling tower on the roof of the hotel garage, 700 feet distant. To combat the inescapable corrosive attack, the engineers used Byers Wrought Iron plates in fabricating the 18-inch pipe which handles the flow. A substantial quantity of Byers Wrought Iron pipe was also supplied for cooling and condenser water lines within the hotel building.

Houston, which claims more air-conditioning than any other city in the world except Washington, D.C., calls itself the "Air-Conditioned City". This concentration of installations gives engineers and users ample opportunity to determine the worth of various materials. It is significant that wrought iron

appears in practically every specification.

The durability of wrought iron in services like these comes from the unusual character of the material. Tiny fibers of glass-like silicate slag, threaded through the body of high-purity iron, halt and "detour" corrosive attack. The fibers also anchor the initial protective scale, which shields the underlying metal just as a scab protects a wound.

If you are contemplating any air-conditioning installations, or are concerned with the maintenance of any existing systems, you will find some helpful information on

J. RUSS BATTY, Architect on Hotel Garage; REG F. TAYLOR, Consulting Mechanical Engineer; CHAS. G. HEYNE & CO., Mechanical Contractors on Air Conditioning; KANE BOILER WORKS, Fabricators of 18" pipe; O. W. ROSIN, Chief Engineer, Rice Hotel.

the use of wrought iron in our bulletin, **WROUGHT IRON IN REFRIGERATION, ICE SKATING RINKS AND AIR-CONDITIONING SYSTEMS**. Ask for a complimentary copy.

A. M. Byers Company, Pittsburgh, Pa. Established 1864. Boston, New York, Philadelphia, Washington, Atlanta, Chicago, St. Louis, Houston, Salt Lake City, San Francisco. Export Division: New York, N. Y.

CORROSION COSTS YOU MORE THAN WROUGHT IRON

BYERS
GENUINE WROUGHT IRON
TUBULAR AND HOT ROLLED PRODUCTS
ELECTRIC FORGEAGE QUALITY ALLOY AND STAINLESS STEEL PRODUCTS

ARCHITECTURAL RECORD



Copyright 1950 by F. W. DODGE CORPORATION, with all rights reserved • Publishing Director, Magazine Division, H. Judd Payne • **EDITORS:** Editor-in-Chief: Harold D. Hauf, A.I.A., A.S.C.E.; Managing Editor, Emerson Goble; Senior Associate Editor, Frank G. Lopez, A.I.A.; Associate Editors, Robert E. Fischer (Engineering), Florence A. van Wyck; Washington News, Ernest Mickel; Contributing Editor, Frederic A. Pawley; Western Editor, Elisabeth Kendall Thompson; Special Editorial Representative, Western Section, William C. Rodd; Associate in South America, Edmund J. Whiting, A.I.A.; Editorial Assistants, Jeanne Davern, Herbert L. Smith, Jr. • **ART DEPARTMENTS:** Myron S. Hall, 3rd, Director; Frances Torbert, Assistant; Sigma Ward, Drafting • **CONSULTANTS:** Chairman, Editorial Board, Kenneth Kingsley Stowell, A.I.A.; Industry Relations Consultant, Thomas S. Holden; Statistical Consultant, Clyde Shute; Building Economics Consultant, Norbert Brown; Field Research Consultant, Clifford Dunnells, Jr.

Architectural Record (combined with American Architect and Architecture) is published monthly by F. W. Dodge Corporation, 10 Ferry St., Concord, N. H., with Editorial and Executive Offices at 119 West 40th Street, New York, N. Y. Western Editorial Office, 2813 Channing Way, Berkeley, Calif. Thomas S. Holden, Pres.; Howard J. Barringer, Vice-Pres. and Treas.; Irving W. Hodsell, Vice-Pres.; Chauncy L. Williams, Vice-Pres.; Sanford D. Stockton, Jr., Secy.; Walter F. De Salis, Asst. Treas.; Edwin H. Freed, Asst. Treas.; Irving B. Satin, Asst. Treas. Member Audit Bureau of Circulation and Associated Business Papers, Inc. Architectural Record is indexed in Reader's Guide, Art Index, Industrial Arts Index and Engineering Index. Subscription rates: United States and Possessions, Canada, Cuba, Mexico, Central and South America, and Spain, \$4.50 the year, \$7.50 for two years, \$9 for three years; elsewhere, \$6.50 the year, \$11.50 for two years, \$15 for three years. Single copy \$1. Circulation Manager: Marshall T. Ginn. Every effort will be made to return material submitted for possible publication if accompanied by stamped, addressed envelope, but the editors and the corporation will not be responsible for loss or damage. Other Dodge Services: Real Estate Record & Builders' Guide, Sweet's Files, Home Owners' Catalogs, Dodge Reports & Dodge Statistical Research Service.

COVER:

Cancer Hospital for Roswell Park Memorial Institute, Buffalo, N. Y. Isadore Rosenfield, Architect

Vol. 107 • No. 2

February 1950

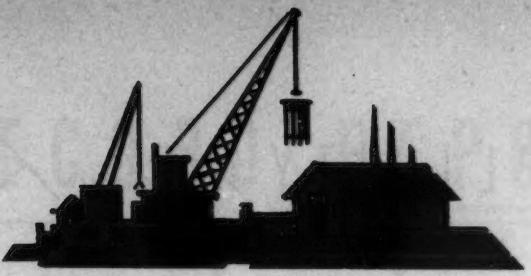
THE RECORD REPORTS	9
Title VIII Program Moves Slowly. By Ernest Mickel	10
Prorating Your Income Can Effect Tax Savings. By Everett J. Mann	15
Construction Cost Indexes	26
News from Washington. By Ernest Mickel	162
News from Canada. By John Caulfield Smith	178
REQUIRED READING	28
ENVIRONMENT CONTROLS DESIGN	85
House for Dorothy Levin, Palm Springs, Calif. William F. Cody, Architect	
STANDARD UNIT SCHEME VARIED TO SPEED AIRPORT TRAFFIC	90
Chicago Municipal Airport Terminal. Paul Gerhardt, Jr., City Architect	
REDEVELOPED WITH A FLAIR	94
First Step in Scheme for Palm Springs Corporation, Palm Springs, Calif. A. Quincy Jones, Architect; Paul R. Williams, Associate	
BUILDING TYPES STUDY NO. 158 HOSPITALS	
TYPE PLANS FOR STATE PUBLIC HEALTH LABORATORY	100
Federal Security Agency, Public Health Service, Division of Hospital Facilities	
NURSES' SCHOOL AND RESIDENCE FOR SAO PAULO, BRAZIL	104
Peter Pfisterer, Chief Architect, Brazilian Field Party, Institute of Inter-American Affairs	
INSTITUTO CENTRAL DO CANCER, SAO PAULO	108
Hospital Antonio Candido de Camargo. Rino Levi, Roberto Cerqueira Cesar, Architects	
CANCER HOSPITAL FOR ROSWELL PARK MEMORIAL INSTITUTE, BUFFALO	112
For Department of Health, State of New York. Isadore Rosenfield, Architect	
ST. CLARE'S HOSPITAL, SCHENECTADY, NEW YORK	119
York & Sawyer, Architects	
TUBERCULOSIS HOSPITAL, DECATUR, ALABAMA	124
Charles H. McCauley, Architect; Whitten, Snook and Adams, Associated Architects	
ARCHITECTURAL ENGINEERING	
Technical News and Research	
SPACE ALLOTMENTS FOR COMMERCIAL HOTELS	127
By Frank Harrison Randolph	
A ROOF DECK THE WEATHER WON'T BOTHER	132
By Harlan H. Edwards	
PLASTICS DAYLIGHT A FIELDHOUSE	134
TIME-SAVER STANDARDS	135
Condensation Control for Houses. Vapor Barriers, Part 1: Floors and Side Walls	135
Hardware. Parts 7, 8, 9: Hinges. By Seymour Howard	138
PRODUCTS for Better Building	139
MANUFACTURERS' LITERATURE	140



JOHNSON BUILDS ANOTHER LANDMARK!

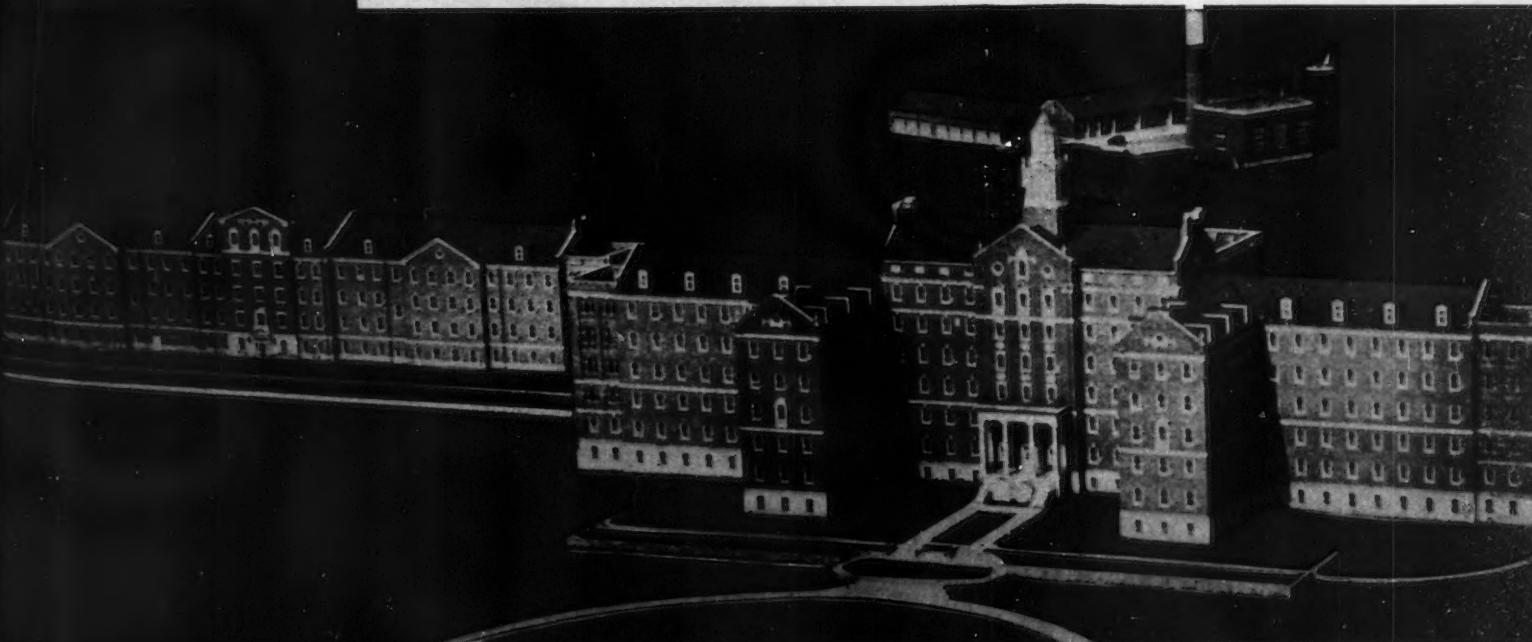
John A. Johnson & Sons, Inc. have long been recognized as builders of outstanding structures. Creating landmarks, meeting "impossible" deadlines, getting around "unsolvable" material shortages have become routine with Johnson in the course of more than 350 million dollars of construction. Pictured above is another Johnson "unusual"—the Syracuse Veterans Administration Hospital, largest building ever to be awarded for that city.





Never in its entire 125-year history has Syracuse seen a building as large as this new Veterans Hospital, now under construction by John A. Johnson & Sons, Inc. Also pictured below is the Veterans Hospital at Lebanon, Pa. This latter substantial contract has included the erection of several additional structures adjacent to the main hospital.

Johnson's success in erecting hospitals is duplicated in other public service structures, such as schools, institutions, urban and suburban housing projects, and entire communities, including utilities and all necessary facilities.



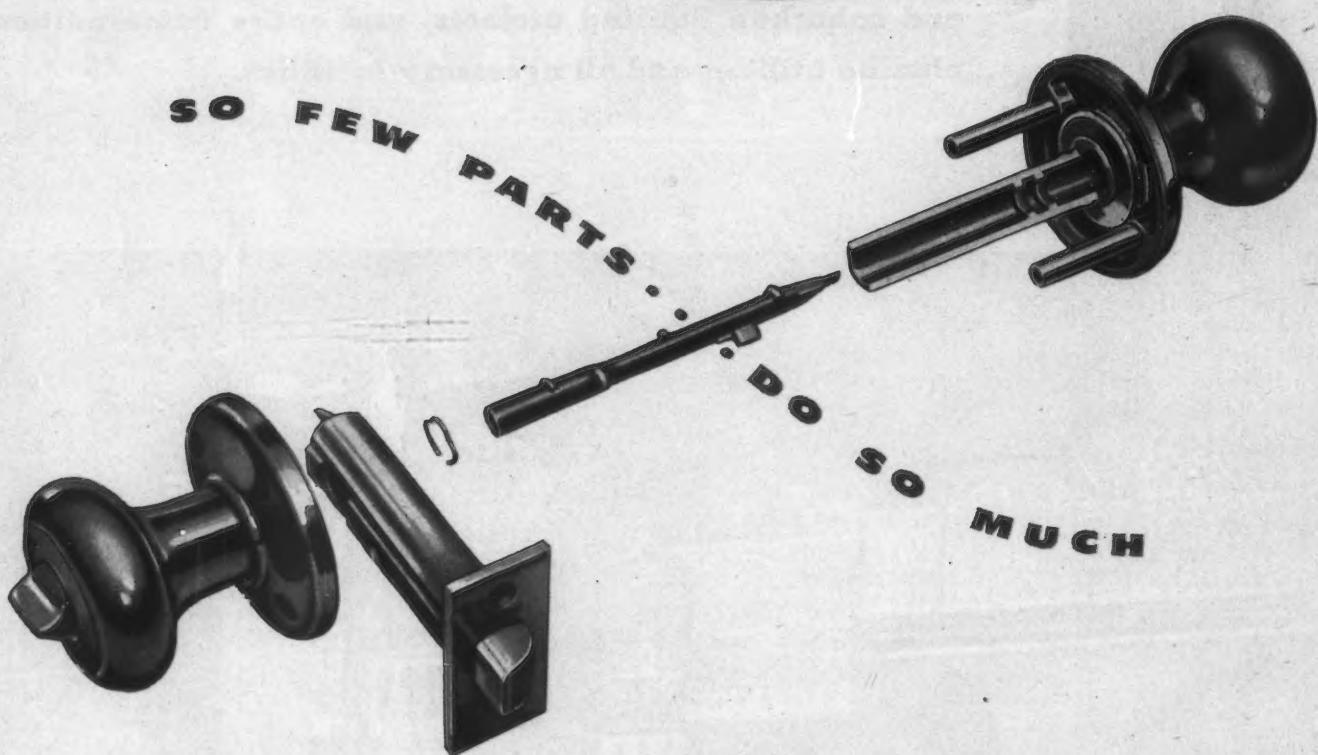
When new hospitals or extensions are contemplated, the tendency is to contact Johnson in the interest of efficiency, know-how, speed and economy. Let us show you why.

John A. Johnson & Sons Inc.

BUILDING CONSTRUCTION • "A FIRM FOUNDATION SINCE 1896"

NEW YORK • BROOKLYN • PEMBERTON • WASHINGTON
COLUMBUS • OAK RIDGE • ATLANTA

S I M P L I C I T Y makes Kwikset Locksets
one of America's outstanding tubular locks!



KWIKSET COMBINES STRIKING BEAUTY, HIGH QUALITY AND EASE OF INSTALLATION WITH LOW COST!



NEW CATALOG AVAILABLE

A new full color catalog describes KWIKSET'S pin-tumbler, cylindrical locks. Write for your copy today! Address inquiries to:
KWIKSET LOCKS, INC., Dept. AR,
Anaheim, California.

SOLD BY LEADING HARDWARE WHOLESALERS, JOBBERS AND DEALERS FROM COAST TO COAST

THE RECORD REPORTS

CONTINUED HIGH BUILDING VOLUME ESTIMATED; SOME ADJUSTMENT STILL EXPECTED

THE old year closed at or near the peak of the renewed postwar construction boom which developed in the last five months of the year, Thomas S. Holden, president of F. W. Dodge Corporation, says.

Last year opened with market adjustment in full swing. In the past, Mr. Holden points out, such an adjustment following postwar price inflation has customarily been accompanied by a fairly severe recession in construction and in general business activity. In early 1949 the decline in construction volume was moderate and of short duration, but it was sufficient to arrest the upward trend of construction costs.

"It was apparently sufficient," Mr. Holden observes, "to convince the investing public by midsummer that costs had become relatively stabilized and no important advantage was to be gained by further deferment of needed projects."

Adjustment Factors Cited

The ease with which the market adjustment was accomplished is attributed by Mr. Holden to five main factors: (1) government supports for farm prices and industrial wage scales; (2) previous absence of speculation and absence of large-scale liquidation of private debt; (3) continued liberalization of home financing; (4) large-scale government spending; and (5) the inherent strength of the American economy.

This last factor, as reflected in the amazing postwar production performance of American industry and American agriculture, Mr. Holden sees as the most important of all.

Our economy produced in the year 1948 goods and services to the amount of \$179 billion, and approximately the same amount again in 1949. Mr. Holden estimates that \$43 billion of this staggering total represents improvement over the consumption standards of 1929, an earlier year of very high prosperity. Such improvement means more and better goods and services, because the figure was arrived at after making full allow-

ance for population and price changes since 1929.

At the same time, and in spite of record dollar volume of construction last year, new construction investment was less in proportion to national income than it had been in earlier years of great prosperity. Physical volume of construction also, with the exception of new dwelling units, was less than the total physical volume of those earlier boom years and less than the wartime peak volume of 1942.

Mr. Holden suggests that these comparisons indicate that the American people have the financial resources to invest even larger amounts in new construction than they did in 1948 and 1949.

Demand for new construction arises principally from the growth factors in the economy. Population growth, new family formations and migration of populations create demands for new housing facilities, new school buildings and other types of community facilities. New industries and new products require new industrial plants; new developments in transportation require ground facilities and terminal facilities.

Although growth factors were temporarily devitalized in the 1930's, this defeatism happily proved to be a temporary ailment, says Mr. Holden, and potentially, the United States has "the capacity to develop its material prosperity and its enormous productivity into a truly great civilization."

"Great civilizations," he adds, "are known to history by the quality and magnitude of their achievements in architecture, engineering and construction techniques."

What Blocks 1950 Upswing?

Consideration of the huge potential growth factors in our economy, Mr. Holden feels, may well prompt the questions: Why will not a considerable measure of this potential growth be realized in 1950? and why is construction volume not expected to increase substantially this year?

Among the lines of reasoning reported by Mr. Holden to underlie Dodge figures on the construction outlook, which estimated a 4 per cent decline from the 1949 total in dollar volume of contracts, are these:

First, the belief that in many respects the readjustments of last year were not fully realized in all lines of business and that readjustments will continue this year.

Government Impact Felt

Second, the knowledge that the recent upsurge in construction was in large part stimulated by the federal government. Dollar volume of private contracts increased less than 2 per cent over 1948, but public construction contracts increased 26 per cent. Besides direct spending and large outlays for grants-in-aid, there was in midsummer a new injection of liberal home-financing credit to stimulate home building.

"It appears to be a deliberate policy of the federal government," Mr. Holden observes on this point, "to use every means at its disposal to maintain construction activity at something approximating the present high levels. Whether this policy is sound, from the point of view of the whole economy, and whether it can be continued indefinitely are questions open to argument."

Our high productivity and our great prosperity, Mr. Holden continues, can be attributed largely to our having invested in production facilities more capital per worker than any other people ever did.

Mr. Holden cites as "but one testimonial among many" to the industry's strength the report issued by a delegation of British industry construction people who visited this country last summer under the auspices of ECA. That report said the American construction industry is "at least 50 per cent more efficient" than Great Britain's.

It looks as though the construction industry will have another good year, Mr. Holden concludes.



BUILT FOR EXPANDING RESEARCH

The H. K. Ferguson Company, Engineers and Builders; Harry Porter, Project Architect

THE main research building of a new organic chemicals research center for the Carbide and Carbon Chemicals Corp. has just been put into operation on its 140-acre tract near the company's South Charleston, W. Va., plant.

The new structure, first of five scheduled in the largest single laboratory project the corporation has ever undertaken, is equipped according to the most recently developed requirements for chem-

ical research. The completed project will eventually house fundamental organic chemical and resin research, as well as process development work for the Chemicals Corp.

The laboratory building proper is designed as a three-story T-shaped structure of steel and brick, 325 ft long by 96 ft deep. It contains 69 individual laboratories and 48 offices, a large-scale laboratory, a large library, an audi-

torium seating 125, and necessary storage and service rooms. Now in operation also are a 40,000-lb-per-hr steam plant, a maintenance and equipment fabricating shop, and a cooling tower, all connected by subways carrying utility lines.

Complete air conditioning, vibration absorption, a multitude of safety devices, fluorescent lighting providing an average of 40 footcandles at all working levels are provided.

TITLE VIII PROGRAM MOVES SLOWLY

By Ernest Mickel

THE desperate need for more adequate housing for military personnel throughout the world is claiming increasing attention. The Title VIII program enacted last year (Wherry Bill) will make some inroads on this complex problem but it is necessarily slow in getting started. As of Dec. 1, Federal Housing Administration had received application for loan insurance for only 5057 units of the rental-type construction, had written insurance on only 1000.

Confusion surrounded the initial phases of this program last fall and architects, along with others in the

building industry, have been uncertain of procedures.

Each of the three services involved — Army, Navy and Air Force — has its own plan of operation. While there are varying degrees of centralization in Washington, architects interested in these housing projects can learn of them earlier by contacting field personnel.

The Navy, for example, recommends its projects through a chain of command starting with the local public works official at the yard or station location. This recommendation passes through the district public works office and then

to the Bureau of Yards and Docks in Washington. In the Army setup, the application originates with a housing officer at the camp, post or station, goes through the commanding officer, the Army Command and finally to Washington. The Air Force has a more centralized scheme, but early information on proposed projects originates at the field or base.

A prospective sponsor — a private contracting firm or experienced operative builder — may find himself in competition with others for the same project;

(Continued on page 182)

RICHMOND AND GOLDBERG AWARDED 1949 HARLESTON PARKER MEDAL

FOR excellence in the design and construction of the Southern Brookline Community Center, Temple Emeth," the Harleston Parker Medal for 1949 has been awarded to Isidor Richmond and Carney Goldberg, Architects and Engineers, of Boston. Established in 1921 by J. Harleston Parker of Parker, Thomas & Rice, the award is made at intervals of not more than three years for "the most beautiful piece of architecture, building, monument or structure within the limits of the City of Boston or of the Metropolitan Parks District." The Boston Society of Architects selects the recipient.

Below: Southern Brookline Community Center, Temple Emeth, Brookline, Massachusetts



Haskell Photo

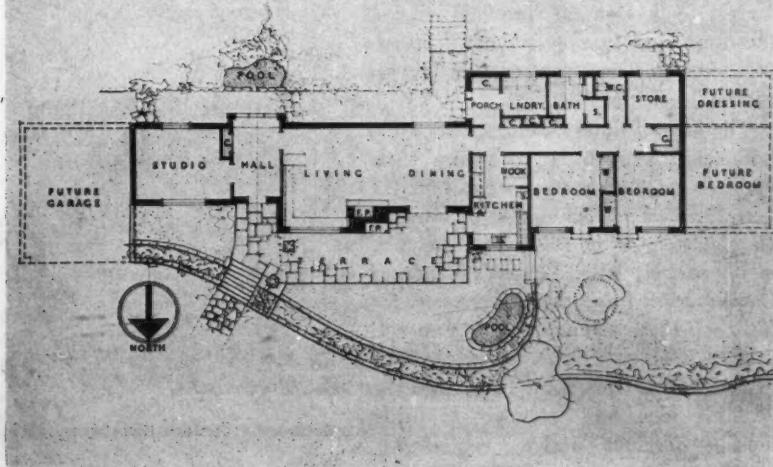
A. Hanson Photos

Albert Hanson, A.R.I.B.A., A.R.A.I.A.
Architect



WINS AWARD IN AUSTRALIA

THIS house designed by an architect for his own family has recently won for him the Sir John Sulman Medal given annually since 1932 "for the design of a building of exceptional merit" built in New South Wales or the Australian Capital Territory during the previous year. Overlooking a natural bush-covered valley, the house has pink tiles, grey walls and white accessories. Each room except bathroom and laundry faces north and has sunlight all day.



MEMORIAL STIRS CONTROVERSY



Lionel Freedman — Pictor

THAT old argument has a new storm center—and some very familiar protagonists.

Percival Goodman's design for a memorial for the 6,000,000 Jews killed in Europe (composite photos above) has the architect, the sponsoring committee and the New York City Department of Parks in battle joined over civic art.

The Museum of Modern Art has leaped to the fray by giving the model a month-long exhibition "to get the public reaction." A site for the memorial, on Riverside Drive at 84th Street, already has been dedicated as a gift from the city.

Is the controversy fresh evidence that the old guard never dies? Or is this a case where the esthetic truly has not been reconciled with the functional?

After failing to approve a group of

statuary sketched at their invitation by Jo Davidson, the committee invited designs from five artists: William Zorach, Chaim Gross and Leo Friedlander, sculptors; Eric Mendelsohn and Mr. Goodman, architects.

Mr. Goodman says the committee accepted his design subject to modifications in the sculptured parts and that the Department of Parks rejected it because of its severe, modern lines.

Administrative Chairman A. L. Lermer of the committee, the American Memorial to Six Million Jews of Europe, Inc., has said that although the directors favored the design they did not finally accept it.

For the Department of Parks, Executive Officer Arthur Hodgkiss explains that the Department rejected the design not because of its style but because

it would take up an inordinately large amount of space in one of the city's most crowded parks and because the candelabrum, set between the West Side Highway and Riverside Drive, might cause automobile accidents by attracting the eyes of drivers.

The beleaguered architect writes:

"The issue seems to me to be this: In general, the Department of Parks is interested . . . in a design that will stir no comment, awaken no feeling, positive or negative, arouse no interest. From this point of view, the best work would not be noticed at all as art, but as a mere decorative adjunct; and the best means to this is to approve only works like those that exist, that are, I fear deservedly, not noticed. But thus we shall never have a monumental art at all."

LARGEST SWEET'S FILE—ARCHITECTURAL IS DISTRIBUTED

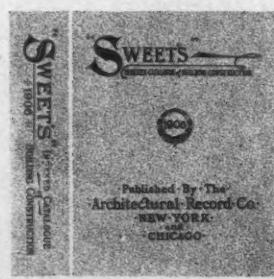
THE six volumes, 33 sections and 8400 pages of the 1950 Sweet's File—Architectural make the new file easily the largest collection of pre-filed manufacturers' catalogs ever put together. Nine hundred manufacturers are represented.

The idea of filing catalogs before distributing them so as to insure their maintenance and instant accessibility in users' offices was originated by Sweet's Catalog Service in 1905. The first file, cumbersomely titled "Sweet's" Indexed Catalogue of Building Construction for the Year 1906, comprised only one volume of 760 pages. Since then many new classifications have been added and the prefiling idea has extended to other fields—product design, engineering,

mechanical industries, power plants, etc.

Distribution of the new Sweet's File—Architectural is now being made to

nearly 17,000 qualified architects, engineers, general building contractors, government offices and libraries.



Don't Trap Vapor in Walls!

Use an insulation which has zero permeability to vapor, is non-condensation forming, can retain no moisture, and will force out fortuitous vapor

To force out vapor, permeability of insulations should be AT MOST 1/5th that of outer walls. Otherwise, trapped inside walls, moisture REDUCES insulation values; and DAMAGES wood, plaster and paint.

Water vapor at 32°F has a volume 205,625 that of water. To prevent condensation, and allow for evaporation, a large space is needed between outer walls and insulations which permit vapor to flow through. Reducing the space or the temperature converts vapor to moisture, retains existing moisture.

Most "vapor barriers," asphalt paper for example, are only waterproof. Water molecules are too large to pass through the pores. But minute particles of gas, such as water vapor, sieve through and accumulate in wall spaces and in ordinary insulations. Vents at top and bottom have little value. Vapor travels the shortest distance to the cold wall and condenses.

Breaks in the outer wall, or infiltration under flanges because of vapor pressure, or seasonal changes of direction of heat flow and vapor, sometimes permit vapor or moisture to leak into the space between wall and insulation.

With Infra, they will be PUSHED OUT as vapor, gradually, through the outer walls by PRESSURE FROM WITHIN; because compared to Infra's ZERO PERMEABILITY to vapor, the outside walls have a substantial permeability. Infra Multiple Aluminum Accordion Insulation is also non-condensation-forming, and can retain no moisture.

THERMAL FACTORS, INFRA TYPE 4

Down Heat C .064 equals 5" Dry Rockwool

Up Heat C .109 equals 3" Dry Rockwool

Wall Heat C .105 equals 3 $\frac{1}{4}$ " Dry Rockwool

Vapor Permeability equals ZERO

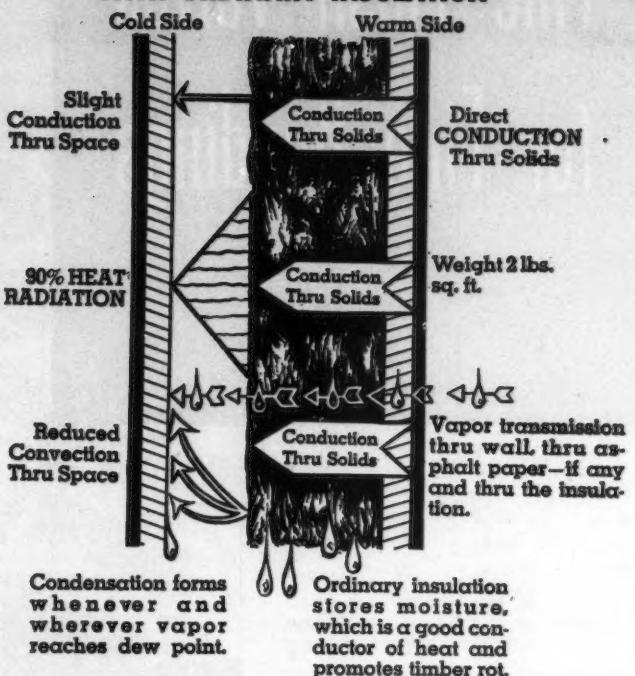
The cost of Infra Type 4 installed between wood joists, material and labor, should be under 8¢ sq. ft. in new construction.

Write Infra for a FREE COPY of the National Bureau of Standards 14-page booklet on "Moisture Condensation in Building Walls." Address Dept. R2

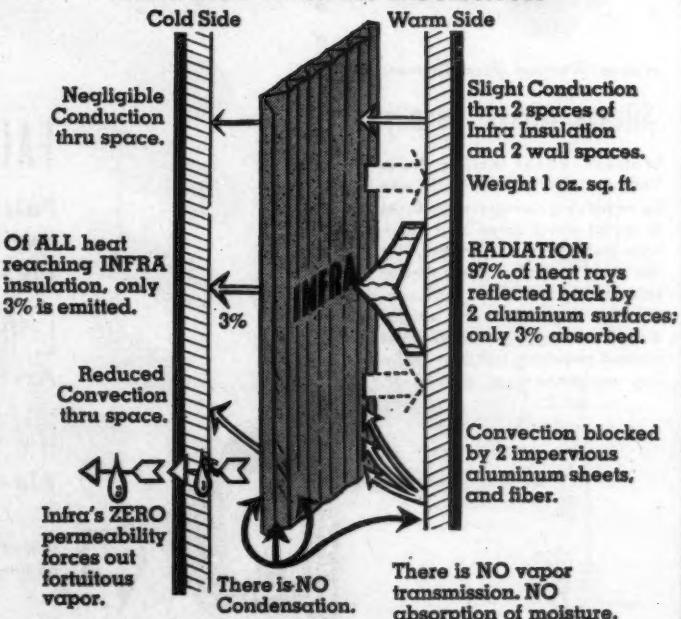
WRITE FOR PRICE LIST OF INFRA'S INSULATIONS

HEAT FLOW thru space of NON-INSULATED WALL:
Conduction 5% to 7%; Convection 15% to 28%;
Radiation 65% to 80%.

HEAT & VAPOR FLOW THRU WALL SPACE WITH ORDINARY INSULATION



HEAT & VAPOR FLOW THRU WALL SPACE WITH TYPE 4 INFRA INSULATION



MULTIPLE ACCORDION ALUMINUM and TRIANGULAR REFLECTIVE AIR CELLS

INFRA INSULATION, INC.

10 Murray St., N. Y., N. Y. Cortlandt 7-3833

Fine Flush Valves for Fine Buildings

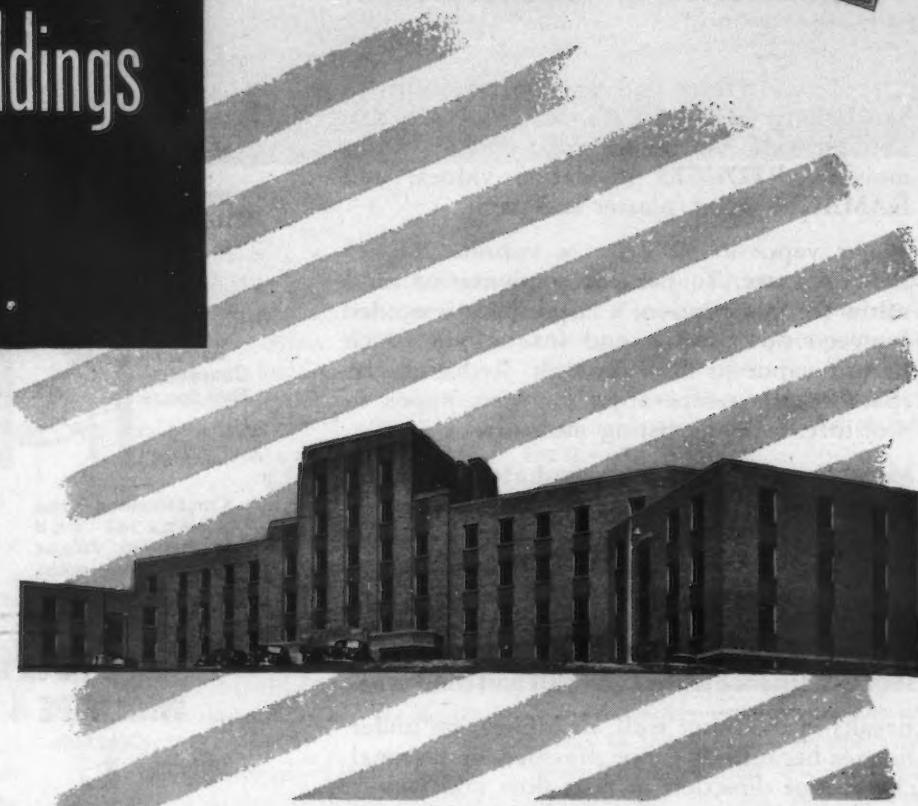
For complete information on Watrous Flush Valves write for Catalog No. 449.



Among Watrous Fine Features

Silence Without Penalty

Watrous Silent Action Flush Valves eliminate unwanted noise by employing corrugated surfaces to arrest water surge and eliminate turbulence. In contrast with the usual method of using shot or screens, Watrous Silent Action retains its high efficiency without danger of clogging — stays silent without requiring frequent cleaning, replacement or adjustment.



FAIRMONT GENERAL HOSPITAL

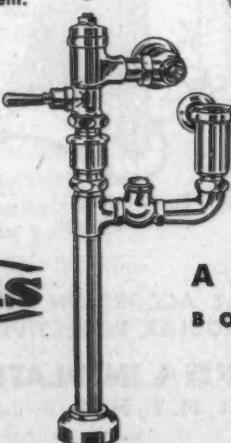
Fairmont, West Virginia, one of the many fine buildings equipped with Watrous Flush Valves.

L. D. SCHMIDT
Architect

WM. M. CLARK & CO.
Plumbing Contractors

This new Watrous Flush Valve Combination for hospitals is especially adapted for bedpan cleansers. Eliminates need for special type bowls.

Watrous



ADJUSTABLE FLUSH VALVES BOTH DIAPHRAGM AND PISTON TYPES

THE IMPERIAL BRASS MANUFACTURING COMPANY
1240 W. Harrison Street • Chicago 7, Illinois

THE RECORD REPORTS

PRORATING YOUR INCOME CAN EFFECT TAX SAVINGS

By Everett J. Mann, Certified Public Accountant

The tax relief under Section 107 of the Internal Revenue Code, as set forth in this article, has no relation to the Silverson Plan. The Silverson Plan is merely contemplated legislation which may some day become part of the tax laws. The tax relief herein described can be of immediate benefit to professional men who meet the qualifications.

An architect is often required to spend several years in working out and developing a project. Only when he has completed the work does he receive his fee, or the bulk of his fee. This has the effect taxwise of piling up income within one taxable year and causing his income to soar into higher brackets. The result is that he pays a much higher income tax than he would have paid had his income been received ratably over the period of his work.

Several years ago Congress recognized this inequity and drafted Section 107 into the Internal Revenue Code. Section 107 provides tax relief for any professional person who receives lump sum income in one year by allowing the individual to go back over a period of years and amend his tax returns for the period over which he did the work.

There are certain strings attached, of course, if one is to take advantage of this privilege. Specifically, there are three criteria imposed. First, the compensation received must be for *personal services rendered*. No architect should have any difficulty here. Secondly, the services rendered must have covered a period of at least 36 months; and, third, 80 per cent of the compensation for the work must have been received in *one* year.

Savings Through Income Proration

For the purposes of examining the practical effects of the law, let us assume that on Dec. 13, 1949, an architect receives a fee of \$45,000 for services performed over the period March 7, 1946 to Nov. 26, 1949. In passing, it should be noted that fractional months are disregarded unless the fractional period amounts to more than half a month. In

this event, the fractional period is considered equivalent to one month. In the situation just outlined, the architect has earned \$45,000 over a period of 45 months and is entitled to prorate his earnings as follows:

Year	Months	Amount
1946	10	\$10,000
1947	12	12,000
1948	12	12,000
1949	11	11,000
	—	
	45	\$45,000

It can be seen that the proration of income is by actual months from the time the work was begun; it is not blanketed merely by calendar years. The architect in question may amend his 1946, 1947 and 1948 income by adding thereto the amounts shown above. He adds \$11,000 to his other 1949 income.

To illustrate the amount of tax savings possible, let us further assume that the architect had net taxable income, other than from that of the above fee, of \$10,000 per year in each of the years

1946, 1947, 1948 and 1949. The following table will show his net tax saving if he amends his prior year returns rather than including the entire \$45,000 in his 1949 income.

	Income Before Proration	Tax
1946	\$10,000	\$ 2,508
1947	10,000	2,508
1948	10,000	2,303
1949	55,000	26,882
Total Tax	\$34,201	
	Prorated Income	Tax
1946	\$20,000	\$ 6,897
1947	22,000	7,961
1948	22,000	7,354
1949	21,000	6,862
Total Tax	\$29,074	

From this example, it can be seen that a saving of \$5127 would result from amendment of former returns as against paying the tax on the income when received.

(Continued on page 20)



"Functionalism would date you — what you want is space cadence —"

— Drawn for the RECORD by Alan Dunn

Make your projects pay off these successful b

Cash in on the sales success of these building projects! Equip your homes with the timesaving, worksaving, moneysaving advantages of the General Electric Complete Kitchen Package. Your houses will sell faster and you'll gain more prestige—as these delighted builders will tell you!!!



"Everything for approximately \$65.00 a month—includes taxes, interest, and principal." That's what attracted and sold prospects who saw this Oman & Sons home equipped with a complete General Electric Kitchen-Laundry!

← "Sold 125 houses
in 10 days!"

Arthur H. Oman

• Mr. Arthur H. Oman of ARTHUR OMAN and SONS, Brockton, Massachusetts, says:

"We sold all the houses in ten days, due to the right combination of houses and appliances. Tens of thousands went through the Model Home . . . were favorably impressed with the complete line of General Electric appliances."

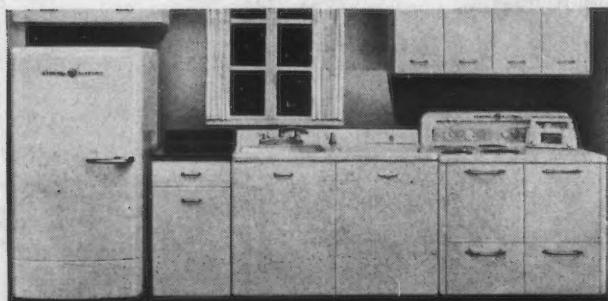
→ "We sold 54
the first week end!"

J. J. Carey

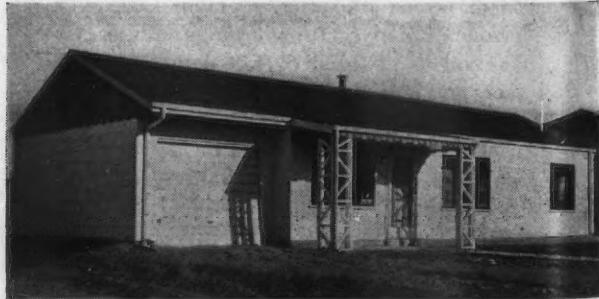
• Mr. J. J. Carey of Hutchinson and Carey, Denver, Colorado, says:

"We offered three bedroom houses for \$9850. The first week end we sold 54 and they have been moving steadily ever since.

"We feel that General Electric equipment contributed in a great measure to this successful operation."



"A low-cost luxury home with fully equipped General Electric Kitchen worthy of a \$30,000 home!" That's how Kensington advertised and sold 250 \$9990 to \$10,990 houses in 10 days!



General Electric range, refrigerator, automatic washer and steel cabinets are included in the \$9850 Hutchinson and Carey homes. Today any home buyer can afford a G-E Kitchen-Laundry.

← "Sold 250 houses
in 10 days!"

Nathan Brisker

• Nathan Brisker, President of KENSINGTON ESTATES, INC., Brentwood, Maryland, says:

"The phenomenal success of our project, in our opinion, is due to a soundly built house well planned, good financing, and the complete General Electric Kitchen. The public deserves better living in the lower-priced home!"

off fast... just as full builders do!!



**"Sold our 67 houses →
the first Sunday!"**

• Mr. E. A. Ballin of Hewlett Harbor Construction, Inc., East Rockaway, L. I., N. Y., says:

"Our model house was featured in national magazines and thousands visited it. The item which caused the greatest comment was the G-E Kitchen. We sold the entire development—67 houses—the first Sunday!"



In the Ballin Houses there are complete General Electric Kitchens! Today it's possible for you to offer General Electric Kitchens at a price any homeowner can afford!

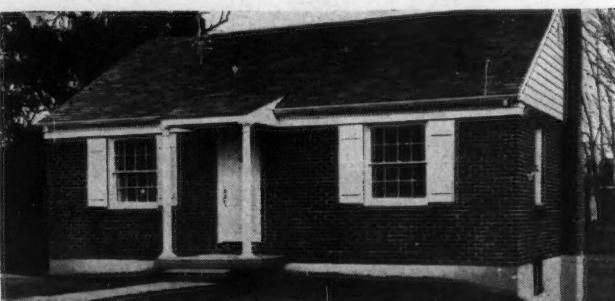


The buyer of this Spurr Home saves on operation and maintenance of efficient General Electric appliances... often enough to cover the slight increase in monthly payments.

**"Sold 44 houses
from 1 sample in 1 day!"**

• Mr. Ralph Talbott, President of the Talbott Building Co., Baltimore, Maryland, says:

"We produced a sample home here with complete General Electric Kitchen... advertised it one Sunday. At the close of business we sold 44 houses to be built at Lochearn." (A week later a total of 71 houses were sold!)



Included in each of the 160 Talbott homes are the following: General Electric dishwasher and sink, 52-gallon electric water heater, electric range, Disposall® and cabinets!



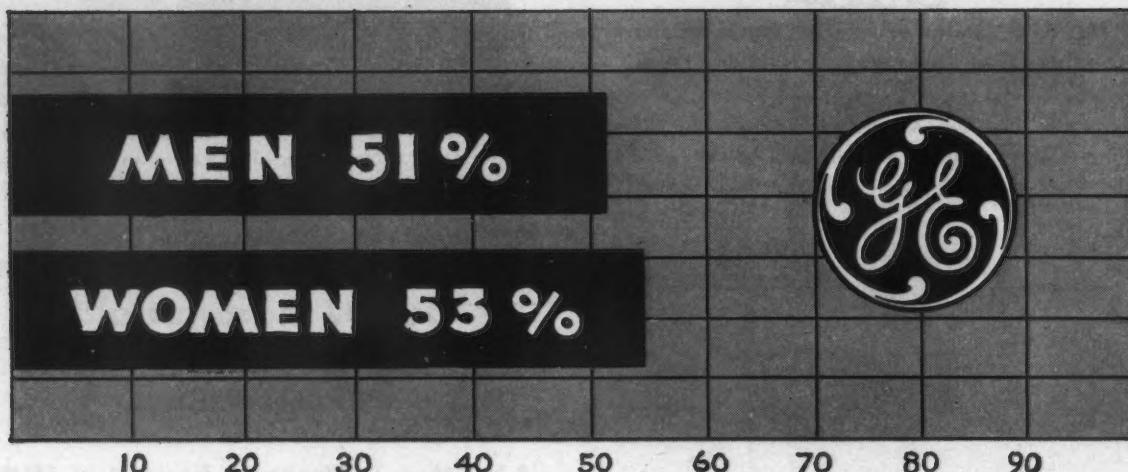
To help you sell
more houses . . .

faster!

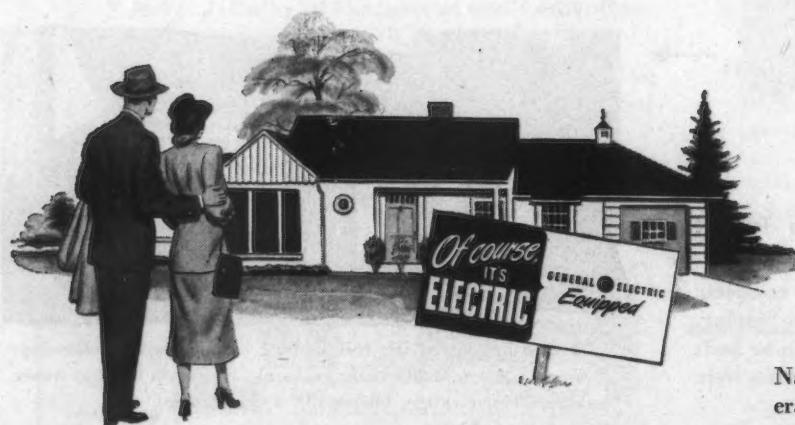
General Electric offers you a merchandising pre

1

**High national acceptance for
General Electric equipment means
faster turnover for your homes!**



People prefer General Electric appliances to all other brand names combined!



**Join in . . . make
the #1 winner
work for you!**

National surveys show that your prospects prefer General Electric appliances over all other brand names!

You owe it to yourself to take advantage of this high consumer preference . . . a preference that helps pre-sell your houses.

you a complete g program!!

2

**Include electrical living
for as little as
\$4.80 a month!**

You offer your prospects the added advantage of complete electrical living when you include the G-E Kitchen Package in the long-term realty mortgage.

Everyone who can afford a home can afford an extra few dollars a month for a General Electric Kitchen! Further, the economical operation, low maintenance and long life of General Electric appliances may offset the slight increase in monthly payments!

3

**Tested builder
advertising and
promotion plans!**

Your General Electric distributor is ready to offer you a complete merchandising program, supported by tested builder advertising and promotional material . . . all designed to help you sell your homes faster.

Make the most of these tested plans that have helped so many builders throughout the country. Contact the General Electric distributor in your area.

4

**Architectural Consulting
Service for you!**

Visit the General Electric Home Bureau in Booths No. 74 and 75, and sit down with us at our roundtable. There will be General Electric planning experts there to talk with you about your 1950 projects.

Our Architectural Consulting Service, we believe, can be of great assistance to you in designing and improving kitchens and layouts for your houses!

You've all to gain by bringing your house plans to Chicago. However, if you can't be at the Convention, contact your G-E distributor, or just address a note to us and we'll see that you receive all the facts you need. Home Bureau, General Electric Company, Bridgeport 2, Connecticut.



You can put your confidence in—

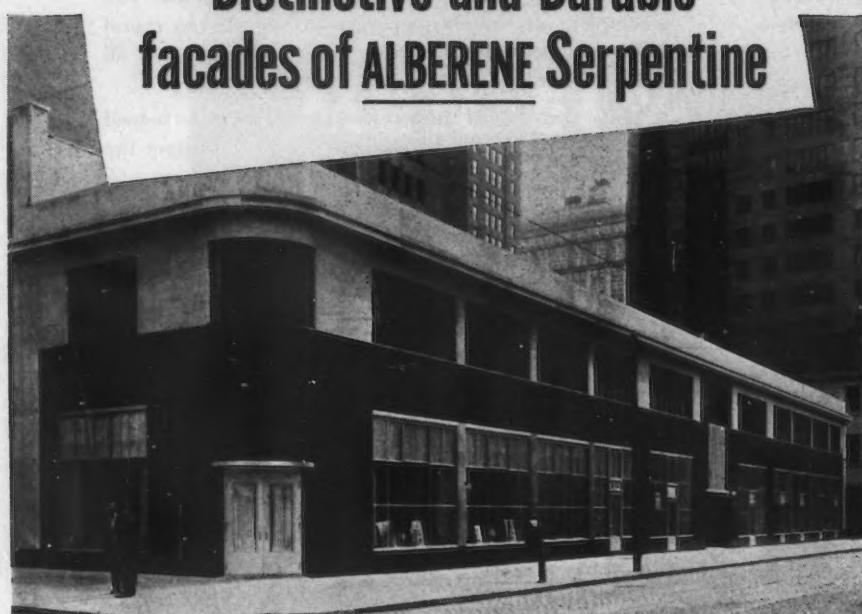
GENERAL ELECTRIC

(Continued from page 15)



Walk-Over Shoe Store, Fifth Avenue
above 45th Street, New York, N. Y.; Kenneth Norton, Architect.

Distinctive and Durable facades of ALBERENE Serpentine



Flanders Bar & Grill, Philadelphia, Pa.; George W. Pepper, Jr., Architect.

You can count on attractive design effect and long-lasting service when you use *Alberene Virginia Black Serpentine*. The distinctive facades pictured above were built more than a decade ago, and they're still in excellent condition . . . still richly handsome in appearance.

You'll find *Alberene Virginia Black Serpentine* doubly economical — low in installation cost and free of maintenance expense. It can be cut into sections as thin as $\frac{1}{8}$ ", because it has great toughness and density. We'll be glad to send you a set of samples, conveniently boxed, showing the range of dark stones available from our quarries. Just write to —

ALBERENE STONE CORPORATION OF VIRGINIA

419 Fourth Avenue, New York 16, N. Y.

Offices in Principal Cities

Elections To Consider

A few technical details are perhaps necessary to clarify further the workings of Section 107. First of all, it should be noted that the right to amend prior year returns is an *election*, not a *mandate*, under the law. For instance, in the example cited above, if the architect had large 1949 losses from other ventures, he might be "tax wise" to include the entire \$45,000 in his 1949 income and not bother with amending his former returns. It is not always easy to say that the relief provided in the tax laws is the best individual solution. A careful computation of taxes must be made before deciding to amend former returns.

This gives rise to the further thought that most architects report their income on a cash basis — that is, they report their incomes in the year they are received in cash and deduct only those expenses paid in cash. This is contrary to the rule in most businesses, where tax returns are filed on the accrual basis. Thus, for the "cash basis" architect, although the income he earns may be prorated over a period of years, the *expenses of producing that income are not prorated*. He can control his expenses to suit his best interests. In the years when taxes are high, he can plan his expenditures and deductions to be at a maximum; in low tax years he can keep expenses at a minimum. By doing this, he secures the greatest tax advantages.

Time of Completion of Project

It often happens that the time of the completion of a work and its payment do not happen simultaneously. In that case, the event that takes place *first* controls the period over which income may be prorated. In the above case, assume that the architect was paid for his services on Aug. 18, 1948 instead of on Dec. 13, 1949 as originally supposed, or on Nov. 26, 1949, when his work was completed. Despite the lapse between the time of payment and the time of completion, the architect is entitled to prorate his income only over the 30-month period from March 7, 1946 to Aug. 18, 1948. This would be at the rate of \$1500 a month. He may qualify for relief because his services were ac-

(Continued on page 21)

THE RECORD REPORTS

(Continued from page 20)

tually performed over a 45-month period even though he received his fee at a time when he had worked only 30 months.

On the other hand, if the architect were to be paid at any time after Nov. 26, 1949, possibly in a succeeding year, he is entitled only to a 45-month proration for the period March 7, 1946, to Nov. 26, 1949. His 1946, 1947, 1948 and 1949 returns are affected as shown by the first table above.

Others Eligible For Relief

If a partnership is in existence, *all the partners are entitled to secure tax relief even though the services were performed by one of the partners.* This would mean that the firm's partnership returns would have to be amended and all of the partners would have to file amended individual returns to reflect the differences in the partnership's income.

It is perfectly possible that an individual architect or a firm may have several jobs being completed in one year that are eligible to qualify for proration. In that case, some fairly complicated scheduling and computations might be necessary, but all of the jobs may be worked out on the prior year returns.

Ordinarily claims for tax refund are outlawed within three years after the returns have been filed. This is not true of income eligible for proration. Returns for as many as 20 years back may be opened up and income restated, if the taxpayer can show he was truly engaged in working on a job over this period of time.

Cautions To Be Observed

In conclusion, it should be reiterated that 80 per cent of the income from a job must be received in one year. If 79.9 per cent of the total fee is received in one year and 20.1 per cent in another, the privilege of proration is gone. By the unwise billing of jobs, substantial tax advantages may be sacrificed.

The task of securing tax relief under Section 107 may require many hours of computations and large consumption of midnight oil. At the same time, the tax relief that can be secured may offset even longer hours spent over a drafting board.

(News continued on page 22)

Security

FREIGHT ELEVATOR DOORS

FOR OVER 30 YEARS
PIONEERS IN ADVANCED CONSTRUCTION

FIRST:

1. To receive underwriters' approval of Electric Interlocking Equipment.
2. Adjustable Anti-Friction Shoes.
3. Rigid Stay-Set Trucking Supports.
4. Plug-Proof Interlocks.
5. Uni-Motor Individual Door Operators.
6. Practical Engineering.

which, combined with long experience and constant field checking and servicing have kept Security as leaders in meeting constantly changing industrial needs.

1950 METAL CLAD!

The proven construction for maximum life and endurance to withstand rough usage and abuse of modern power trucking.

1950 UNDERWRITERS LABELED DOORS

provide minimum standards for hatchway entrance protection.

Security's Underwriters labeled doors are specifically designed for the maximum requirements of each individual job so that they will give the better and lasting protection that owners seek.

1950 REINFORCED TRUCKING BARS

Modern Security Doors are known for the reinforced construction of their trucking bars. Individually engineered for each installation, these heavy duty trucking bars adequately handle the job indefinitely.

this assures continued

Lowest fire insurance rates
Lowest casualty insurance rates

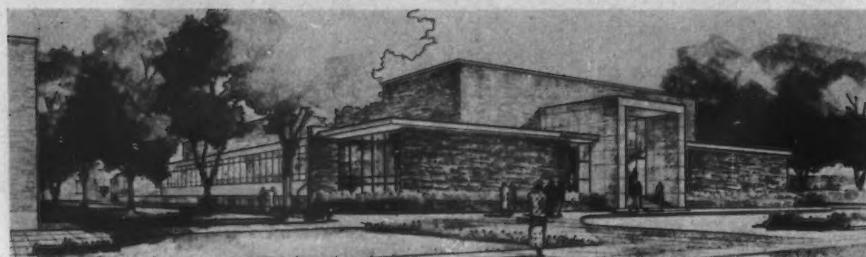
Security FIRE DOOR CO.

3046 LAMBDIN AVE. • ST. LOUIS 15, MO.

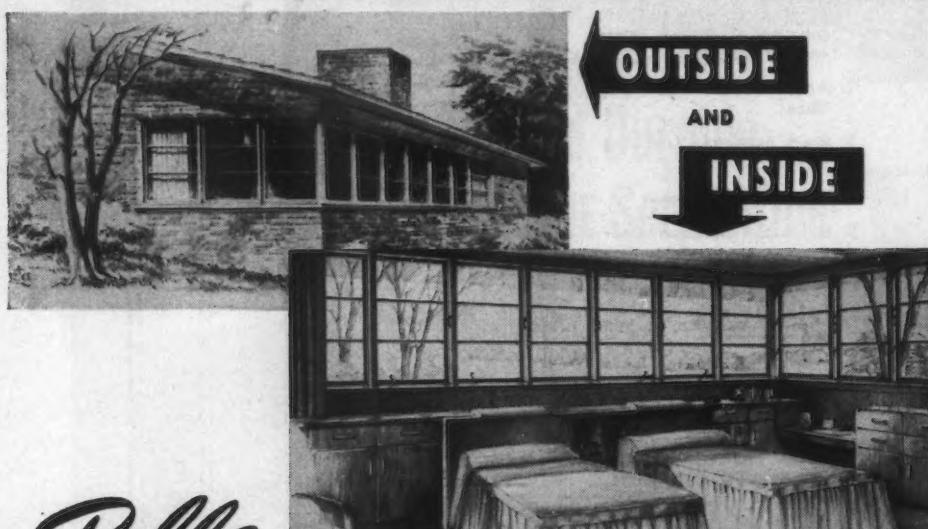
SECURITY FIRE DOORS

THE RECORD REPORTS

(News continued from page 21)



Jewish Community Center for Englewood, New Jersey; Kelly & Gruzen, Architects



Pella CASEMENT WINDOWS

PROVIDE CUSTOM WINDOW EFFECTS from STOCK SIZE UNITS

Pella Casement Units can be combined into more than 300 different sizes of varying width and height. Installation cost is cut to a minimum because all Pella Casement Windows are completely assembled and pre-fitted at the factory. Pella Casements, in modular dimensions, fit right into specified rough openings.

CHECK THESE CONVENIENT, LOW-COST Pella FEATURES

ROLLSCREENS—Pella Casements are equipped with inconspicuous, convenient Rollscreens that roll up and down like window shades. Rollscreens eliminate putting up, taking down, painting, repairing and save valuable storage space.



EASY TO OPERATE—Pella's patented hinge design and construction assure easy operation.

FITS ALL TYPES ARCHITECTURE—Pella Casements fit snugly into wood, frame, brick, brick veneer, stone, etc. They convey dignity and sturdiness to Colonial architecture . . . enhance Cape Cod "coziness" . . . lend breadth to Modern or Spanish styles and sturdiness to half-timbered English.

3-LIGHT WIDE UNIT—Only Pella can build these wide casement units, made possible because of Pella's patented hinge design, superior sash construction and steel inner frame.

DUAL GLAZING AND WEATHERSTRIPPING—All Pella Casements are dual glazed to insulate against winter cold and summer heat . . . weather-striped to eliminate drafts.

For Further Information,

see our catalog in

SWEET'S

ARCHITECTURAL

AND

BUILDING

FILES



ROLLSCREEN COMPANY, Dept. B-5, Pella, Iowa

Without obligation, send me PELLA CASEMENT DETAIL file . . . a complete set of drawings showing sizes, applications and various combinations of Pella Casement units.

Name _____

Firm _____

Address _____

City _____ State _____

PELLA CASEMENTS • ROLSCREENS • VENETIAN BLINDS

MODULAR PLANNING CITED AS AID IN KEEPING COSTS DOWN

EXTENSIVE use of uninterrupted glass exterior walls and modular interior partitioning systems providing an unusual versatility of room arrangement helped the architects for this quarter-million-dollar Jewish Community Center in Englewood, N. J., to create a building with a variety of social, educational and recreational facilities at a cost far below that of the usual structure of this type.

In working out a suitable structural design, the architects and Structural Engineer Fred Severud considered all usual and several unusual methods of spanning large areas. These included laminated wood arches, metal and concrete rigid frames, etc. For this particular job it was determined that more conventional steel framing provided the least expensive and from the design point of view the most satisfactory method of enclosing the space.

The building will occupy a plot 125 ft by 345 ft adjacent to an existing small temple belonging to the same congregation.

Interior and exterior wood construction was found to be most economical. The auditorium portion will have steel framing and brick cavity walls. Precast concrete planks are used for the main auditorium roof. Briar Hill stone will be used on the front elevation only. Continuous strips of steel windows located between bearing wood mullions will contribute to good daylighting for classrooms, which have clerestory windows on the upper north wall for cross ventilation and augmented daylighting.

The auditorium, seating 700 and for use also as a gymnasium, will open off a 60 ft lobby. Mezzanine dressing rooms over the stage will serve as choir room and organ loft when the auditorium is used for high holiday services.

The school section, normally comprising six classrooms and a kindergarten, is designed as a modular system for flexibility to meet any change in space requirements. The kindergarten opens on an interior patio.

A youth game room 64 ft by 33½ ft is part of the social and recreational area in the basement, which also includes a special exercise room, a darkroom for camera enthusiasts, and an arts and crafts room.

(News continued on page 23)

THE RECORD REPORTS

(Continued from page 22)

BRAB WEATHER CONFERENCE

The first Research Correlation Conference of the Building Research Advisory Board held Jan. 11 and 12 in Washington was in the nature of an exploratory meeting designed to bring out what weather data is available, how this data is applied now and, more important, how it might be put to better use in the future and also what further data is needed.

The problem of designing the structure to fit the climate, as brought out by the speeches and panel discussions, can fairly well be divided into four main points.

First of all is climate itself, the climate of a fairly large area (macroclimate) and the climate of a site (microclimate). The more important of these to the designer, who needs more information on how to determine it, is microclimate. Second, there is greater availability than demand for existing weather data, and new methods of exploiting it are needed for determining durability of building materials and performance of climate control devices. Third, economics of construction must be considered as well as optimum design from the scientific angle. And fourth, people are looking for psychological satisfaction as well as thermal comfort in a structure.

Conference Chairman C. F. Rassweiler, who is BRAB Executive Committee chairman and vice president in charge of research for Johns-Manville Corp., opened the program and at the end summarized the results of the meeting from the standpoint of building technology. Francis W. Reichelderfer, chief of the U. S. Weather Bureau, summarized the conference for the weather sciences.

The conference led off with reports on recent climatological research by government and Army weather experts

Dr. C. F. Rassweiler, Conference Chairman



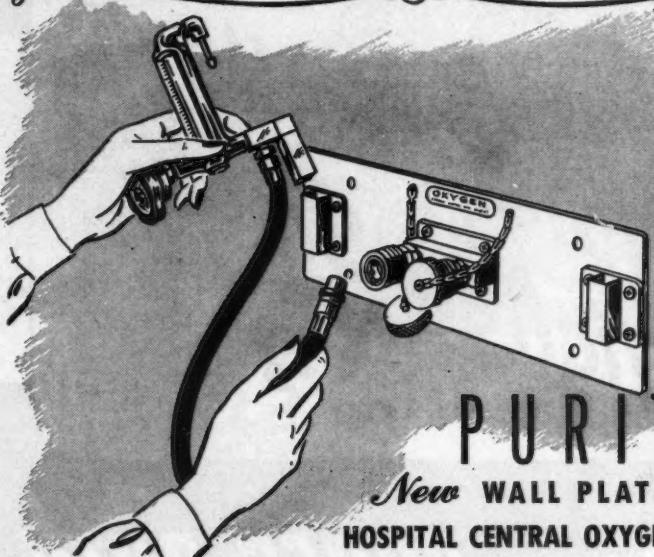
including Dr. Paul Siple, U. S. Army General Staff military geographer and Dr. Helmut Lansberg, executive director of the Committee on Geophysics and Geography of the Research and Development Board.

Walter A. Taylor, director of the A.I.A.'s Department of Research and Education, was moderator for the discussion "Climate and the Design of Building," which included talks by

James M. Fitch, architectural editor of *House Beautiful*, on "Buildings Designed for Climate Control," and by Dr. L. P. Herrington, director of research for the John B. Pierce Laboratory of Hygiene, on "Human Factors in Planning for Climate Control." Speakers in the discussion that followed were William B. Caudill, Robert W. Cutler, Carl Koch, Alfred B. Parker, Buford L. Pickens.

(News continued on page 24)

Organized in 1912 for Service to Hospitals



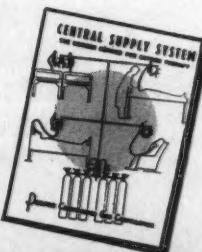
PURITAN

New WALL PLATES FOR
HOSPITAL CENTRAL OXYGEN SYSTEMS

Equipment for administration is positioned for use in a minimum of time when Puritan Wall Plates are used, and the Quick-Connector Valves provide safe connection to oxygen supply in a matter of seconds. Thus administration is simplified and the attendant freed for other duties. Wall plates are of heavy, gleaming stainless steel with chrome fittings, designed to remain firmly in place and prevent damage to walls. Single or duplex sizes available.



A copy of this new
Central Supply System
circular will be sent
on request.



DURITAN COMPRESSED GAS CORPORATION

Puritan Dealers in Most Principal Cities

BALTIMORE ATLANTA BOSTON CHICAGO CINCINNATI DALLAS
DETROIT NEW YORK ST. LOUIS ST. PAUL KANSAS CITY

Puritan Maid Anesthetic, Resuscitating and Therapeutic Gases and Gas Therapy Equipment

(News continued from page 23)

Taft-Hartley Results Called "Disappointing" to Builders

COUNSEL GENERAL Robert N. Denham of the National Labor Relations Board addressed some 1100 leaders in the building industry at the January 12 annual dinner of the Building Trades' Employers Assn. of New York City. Speaking on the application of the Taft-Hartley Act to the building industry,

Denham summarized: "It is pretty disappointing to find how little we seem to have accomplished (to achieve) a crystallization of official thought as to the meaning and intent of the law." "Difficulty in obtaining a divorce of thinking . . . from (the) old Wagner Act formulae," "expectation that the Taft-Hartley Act would be repealed," and "honestly held conflicting opinions" were among the factors he advanced for

the present state of uncertainty. Many of the pitfalls for both labor and employers were stressed.

On the rosier side, Denham felt that before the end of 1950 there would be "some constructive decisions of the Courts" to clarify the situation. A tribute was paid the New York organization of contractors and labor to handle disputes, cited in a previous speech by Peter W. Eller, chairman of the BTEA Board of Governors. The group gave "a very real inspiration" for the National Joint (Dunlop) Board for the Settlement of Jurisdictional Disputes, Denham added. Since the forming of this board in 1948, "losses to builders and employees throughout the nation . . . from work stoppages based on jurisdictional disputes . . . have been reduced to less than 10 per cent of (those before) the Taft-Hartley Act went into effect."

Earlier that same day, the New York Building Congress met to hear Nelson Rockefeller speak on "The Growth of the Community." Architect Louis Skidmore, president of the Building Congress, presided at the meeting.

Mr. Rockefeller was introduced by Architect Wallace K. Harrison, Honorary Chairman, who cited the large volume of construction done by Rockefeller, particularly in South America. Beginning with a discussion on Rockefeller Center, Mr. Rockefeller continued with comments on the operation of the community as it applies to the world and our special obligations of today.

ASHVE MEETS IN DALLAS

The American Society of Heating and Ventilating Engineers held its 56th annual meeting in Dallas, Texas, January 22-26. Highlighting the five-day meeting was a series of technical sessions devoted to discussing new developments in the field.

The first session covered night-air cooling and a physiologic examination of the effective temperature index. Topics of interest in the following meetings included heat pump performance, solar heating and baseboard radiation. Panel heating and cooling were analyzed from such varied aspects as heat flow within concrete panels and effect of panel location on skin surface temperature.

C. Rollins Gardner was general chairman of the committee on arrangements.

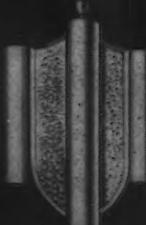
(News continued on page 146)

WOMEN DON'T WANT..



NU TONE CURES BOTH

Don't plan an unfriendly home for your clients—with old-fashioned, ear-splitting doorbells and irritating kitchen odors. Specify a NuTone Door Chime for a warm, friendly welcome at the front door—and specify a NuTone Kitchen Ventilating Fan for sweet, fresh air in the kitchen all year long. Make every home you plan complete with these two NuTone features. Write for FREE literature.

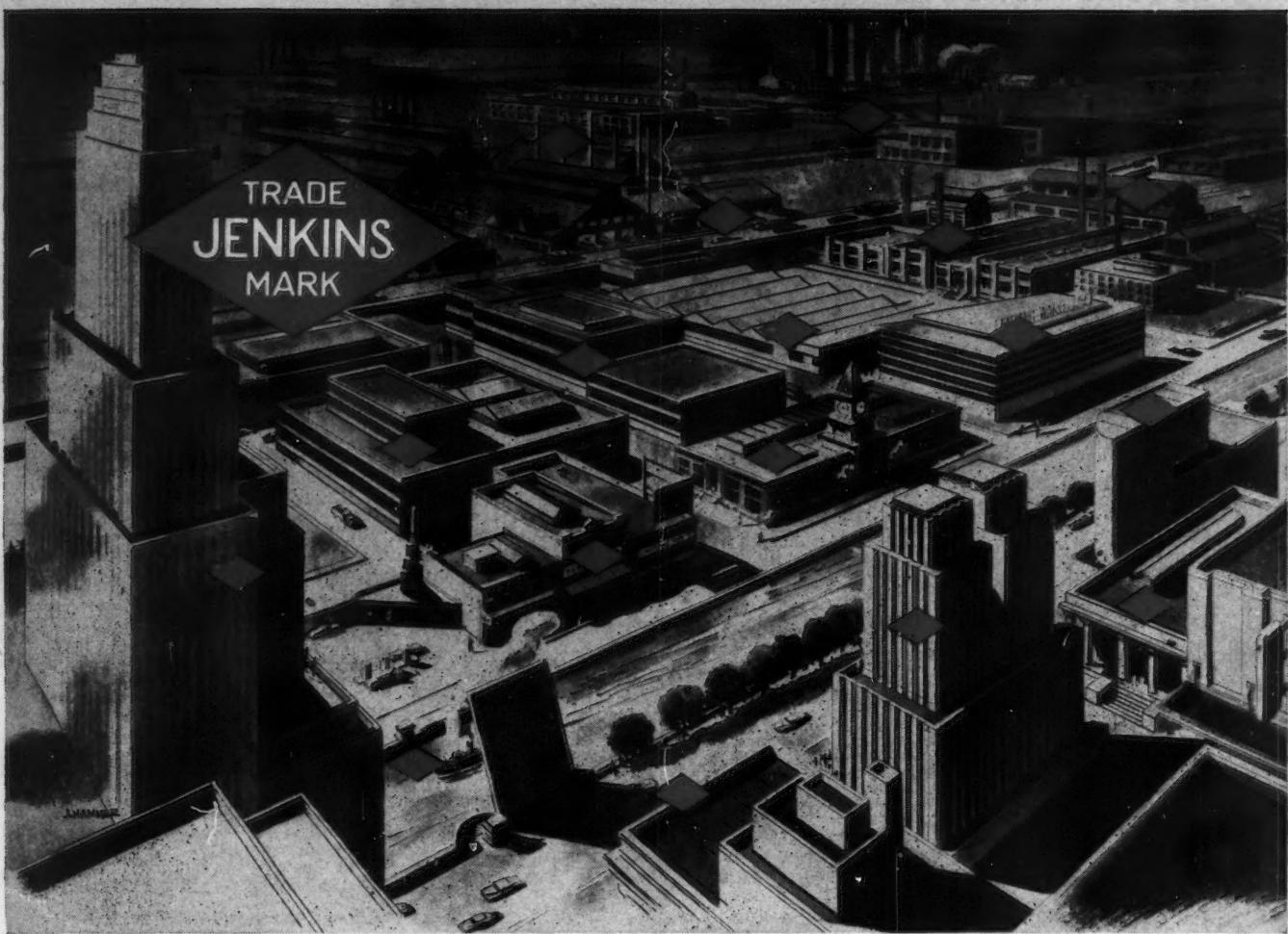


Electric Door Chimes



Kitchen Ventilating Fans

NUTONE, INC., Dept. AR-1, Cincinnati 27, Ohio.



Acres of Diamonds

YOU SEE only the structures of commerce, soaring skyward . . . the strange new shapes of industry stretching beyond. Yet all around you are acres of diamonds. Diamonds that identify the thousands of Jenkins Valves on duty in the many different types of buildings essential to modern civilization.

Nothing holds its value like the diamond, in valves as in gems. Four generations of American builders have placed their trust in the Jenkins diamond and signature trade mark. Today, as in 1864, Jenkins Valves are the choice of men who plan shrewdly, always with an eye to future maintenance and operating costs.

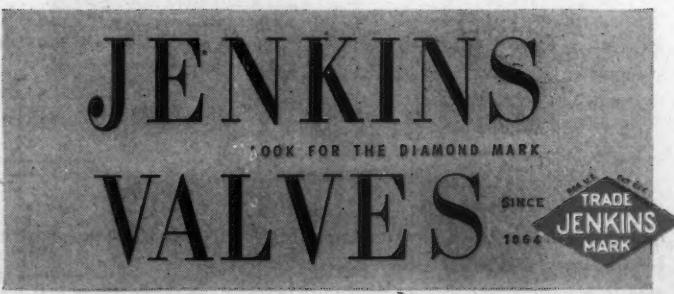
They know that Jenkins builds extra endurance into Valves — proved by long life and low upkeep cost

records in every type of service. They know, too, that there is extra value in the *experience* Jenkins Valve specialists can apply to any question of selection, installation, or maintenance.

You pay no more for Jenkins Valves, despite their superior quality and service. So why not let the Jenkins diamond serve as your guide to valve economy . . . for new installations, for all replacements. Sold through leading Industrial Distributors everywhere.

J E N K I N S B R O S .

80 White St., New York 13;
Bridgeport, Conn.; Atlanta; Boston; Philadelphia; Chicago;
San Francisco. Jenkins Bros., Ltd., Montreal.



CONSTRUCTION COST INDEXES

Labor and Materials

United States average 1926-1929 = 100

Presented by Clyde Shute, manager, Statistical and Research Division,
F. W. Dodge Corp., from data compiled by E. H. Boeckh & Assocs., Inc.

NEW YORK

Period	Residential		Apts., Hotels Office Bldgs. Brick and Concr.	Commercial and Factory Bldgs. Brick and Concr.		Residential		Apts., Hotels Office Bldgs. Brick and Concr.	Commercial and Factory Bldgs. Brick and Concr.		
	Brick	Frame		Brick	Brick and Steel	Brick	Frame		Brick	Brick and Steel	
1925	121.5	122.8	111.4	113.3	110.3	86.4	85.0	88.6	92.5	83.4	
1930	127.0	126.7	124.1	128.0	123.6	82.1	80.9	84.5	86.1	83.6	
1935	93.8	91.3	104.7	108.5	105.5	72.3	67.9	84.0	87.1	85.1	
1939	123.5	122.4	130.7	133.4	130.1	86.3	83.1	95.1	97.4	94.7	
1940	126.3	125.1	132.2	135.1	131.4	91.0	89.0	96.9	98.5	97.5	
1945	160.5	161.7	156.3	158.0	155.4	132.1	133.9	123.2	122.8	123.3	
1946	181.8	182.4	177.2	179.0	174.8	148.1	149.2	136.8	136.4	135.1	
1947	219.3	222.0	207.6	207.5	203.8	180.4	184.0	158.1	157.1	158.0	
1948	250.1	251.6	239.4	242.2	235.6	199.2	202.5	178.8	178.8	178.8	
Sept. 1949	239.2	236.3	240.6	244.0	237.5	183.7	183.7	178.4	178.4	174.8	
Oct. 1949	242.7	239.4	241.0	244.2	237.6	184.3	184.7	177.9	177.6	174.7	
Nov. 1949	242.7	239.4	241.0	244.2	237.6	184.8	186.0	178.2	177.8	175.1	
<i>% increase over 1939</i>											
Nov. 1949	96.5	95.6	84.4	83.1	82.6	114.1	123.8	87.3	82.5	84.8	

ST. LOUIS

1925	118.6	118.4	116.3	118.1	114.4	91.0	86.5	99.5	102.1	98.0
1930	108.9	108.3	112.4	115.3	111.3	90.8	86.8	100.4	104.9	100.4
1935	95.1	90.1	104.1	108.3	105.4	89.5	84.5	96.4	103.7	99.7
1939	110.2	107.0	118.7	119.8	119.0	105.6	99.3	117.4	121.9	116.5
1940	112.6	110.1	119.3	120.3	119.4	106.4	101.2	116.3	120.1	115.5
1945	152.8	152.3	146.2	148.5	145.6	146.2	144.3	144.5	146.8	147.9
1946	167.1	167.4	159.1	161.1	158.1	159.7	157.5	157.9	159.3	160.0
1947	202.4	203.8	183.9	184.2	184.0	193.1	191.6	183.7	186.8	186.9
1948	227.9	231.2	207.7	210.0	208.1	218.9	216.6	208.3	214.7	211.1
Sept. 1949	218.2	216.2	212.9	216.2	214.4	208.4	200.8	213.6	218.9	214.4
Oct. 1949	218.9	217.1	213.1	216.2	214.5	212.2	205.8	214.9	219.8	215.0
Nov. 1949	220.9	219.2	214.2	217.9	215.4	213.6	207.6	215.2	220.0	215.4
<i>% increase over 1939</i>										
Nov. 1949	100.4	104.8	80.4	81.8	81.0	102.2	109.0	83.3	80.4	84.8

The index numbers shown are for combined material and labor costs. The indexes for each separate type of construction relate to the United States average for 1926-29 for that particular type — considered 100.

Cost comparisons, as percentage differences for any particular type of construction, are possible between localities, or periods of time within the same city, by dividing the difference between the two index numbers by one of them; i.e.:

index for city A = 110

index for city B = 95

(both indexes must be for the same type of construction).

Then: costs in A are approximately 16 per cent higher than in B.

$$\frac{110-95}{95} = 0.158$$

Conversely: costs in B are approximately 14 per cent lower than in A.

$$\frac{110-95}{110} = 0.136$$

Cost comparisons cannot be made between different types of construction because the index numbers for each type relate to a different U. S. average for 1926-29.

Material prices and wage rates used in the current indexes make no allowance for payments in excess of published list prices, thus indexes reflect minimum costs and not necessarily actual costs.

These index numbers will appear whenever changes are significant.

STANWORTH, Princeton, N. J. (Below)

Comprises 23 one and two-story garden-type apartment buildings, designed to harmonize with surrounding fine private homes. Architects: Holden, McLaughlin and Assoc. Gen. Contractors: Wm. L. Crow Const. Co. Floor Contractors: Builders' Wood Flooring Co.



MANHATTAN HOUSE, New York City
When completed in 1950, will contain 582 apartments in a 19-story and penthouse building occupying an entire block. Associated Architects: Mayer & Whittlesey—Skidmore, Owings & Merrill. General Contractors: Cauldwell-Wingate Co. Floor Contractors: Builders' Wood Flooring Co.

FRESH MEADOWS, Queens, Long Island
A modern residential community of 3,000 apartments in 138 two and three-story and two thirteen-story structures. Architects: Voorhees, Walker, Foley and Smith. Gen. Contractors: George A. Fuller Co. Floor Contractors: Builders' Wood Flooring Co.

In all three
New York Life
apartment
developments



It's Bruce Block Hardwood Floors

The apartment developments of the New York Life Insurance Company, pictured above, vary widely in location, architecture, planning, size, and rental rates. But, in all three, ideas and materials have been used which provide beautiful, modern apartments for tenants and sound investment value for the owners.

Take the floors, for example. In Fresh Meadows, Stanworth, and Manhattan House, Bruce Blocks give rooms the natural, friendly beauty of hardwood plus decorative modern design. These floors are beautiful and stylish, yet so homelike and livable. They are warm, quiet and comfortable underfoot . . . and are easy to keep clean and shining at all times.

These solid hardwood floors are thrifty for owners because they last the life of the building. Even after many years of hard service, all their original beauty can be restored by refinishing.

Used in 9 out of 10 largest apartment projects

Bruce Hardwood Blocks have been selected for 9 out of 10 of the nation's largest apartment developments owned and operated by life insurance companies. Over 100,000,000 sq. ft. have been used in apartments, homes, offices, schools and stores from New York to California. This hardwood flooring is particularly adapted to modern construction because it can be laid in mastic directly over concrete, without wood subfloor or screeds.

See our catalog in Sweet's Files, and write for new full-color booklet on "Modern Hardwood Floors."

Bruce Block Hardwood Floors



PRODUCT OF E. L. BRUCE CO., MEMPHIS 1, TENN.
World's Largest Maker of Hardwood Floors



REQUIRED READING

TWO ON HOSPITALS

Design and Construction of General Hospitals. The Modern Hospital Publishing Co., Inc. (919 N. Michigan Ave., Chicago 11, Ill.), 1949. 110 pp., 8½ by 11½ in.

This collection of articles originally published in "The Modern Hospital" is intended, according to an introductory statement, to give hospital architects "the same familiarity with hospital functioning that they would have if they worked on the floors and in the kitchens, boiler room, laundry, and other hospital departments."

Although no architect could qualify for a nurse's aide certificate on the basis of his reading of this book alone, many will find here in convenient form a great deal of general information about hospital procedure as it affects building design. The flow charts, area tables, and equipment schedules should be particularly useful for check-list purposes.

Washington State Hospital Study: A Guide to Expanding Hospital Service. Washington State Department of Health (Smith Tower, Seattle, Wash.), 1949. 79 pp., 8½ by 11 in.

Methods being used in the State of Washington for determining specific hospital and public health service needs are set forth in this report, which is intended to explain criteria for allocating the federal funds for hospital construction available to the states through the Hospital Survey and Construction Act, Public Law 725. Aside from its interest as a survey document, this report presents study methods of interest to all planners of hospital service.

TWO ON FURNITURE

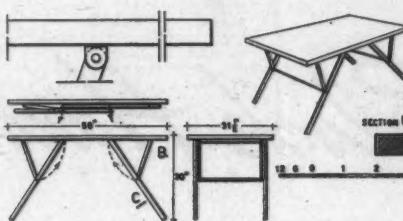
Modern Furniture. By Mario Dal Fabbro. Reinhold Publishing Corp. (330 West 42nd St., New York 18, N. Y.), 1949. 11½ by 8¾ in. 174 pp. illus. \$5.00.

Furniture Forum. Published quarterly by Phillip L. Pritchard, 254 West 54th St., New York 19, N. Y., 8½ by 11 in., 64 pp., illus. \$4.50 per year.

Mario Dal Fabbro, ex-Italian furniture designer now in the U.S.A., has produced his first American book — probably not his only one, if his future work can be predicted from his past.

This venture is at least refreshing: mostly drawings which have a flavor foreign to this country, it shows us what the furniture of several designers looks like when viewed by an ex-Italian.

Perhaps half a dozen American designers' chairs, tables, cabinets, stools, etc. are included; the remainder are Italian or Swiss, with a few pieces of Swedish, English, or German origins. The drawings are quite carefully accurate, and at first glance convey the impression of full detail; over-all dimensions are given for each piece; but close examination reveals that in actuality the details which matter are appallingly absent. There is great preoccupation with the mechanical operation of the



One of the diagrams from "Modern Furniture" by Mario Dal Fabbro

furniture; everything tilts or hinges or folds or demounts or collapses — one hopes not accidentally. All this is indicated with lots of arrows. When one tries to ferret out the design of a joint, however, to see just how that surface is continued so sleekly from a vertical plane around a corner and over a horizontal — well, none but the most obvious are included. (Perhaps furniture designers and manufacturers consider these trade secrets.) There is almost no upholstered furniture. Nor are there any notes on the specific materials, colors, or finishes: wood is wood, metal metal, cloth cloth, and that's that.

In the back of the book are 16 simple pieces laid out for the amateur craftsman to build. Here the details are fairly complete, although the hatracks and night tables shown are not much advanced over the projects built in the average high school manual arts class. Indeed, the examples so carefully selected throughout the entire book have the spindle-legged, delicate, too-nicely-

balanced look of much contemporary Italian work. There is a faint odor of decadence about them — or does this come from the style of drawing? Surely not all of Charles Eames', George Nelson's, or even Mario Dal Fabbro's furniture has exactly that unsubstantial quality.

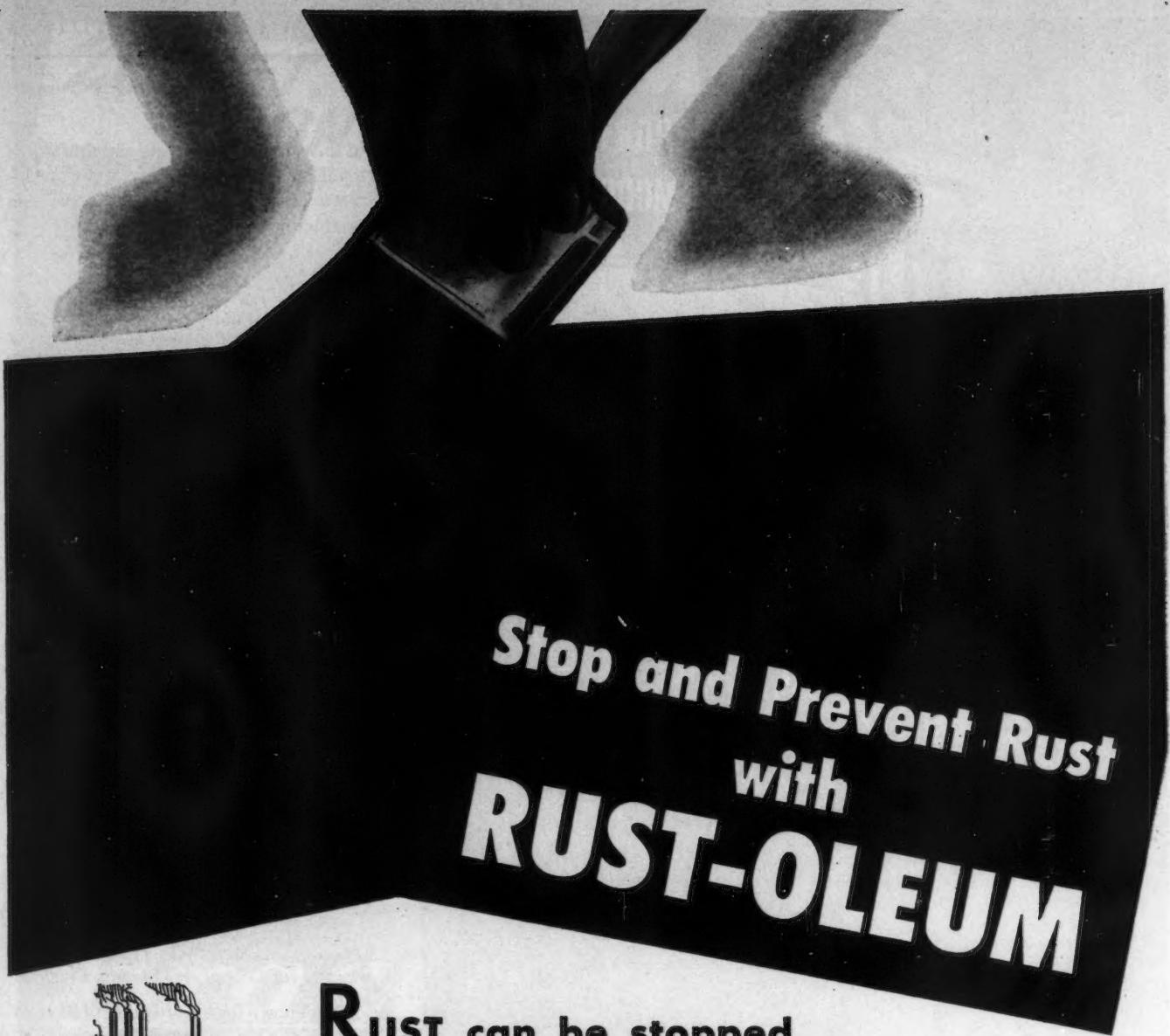
In contrast, "Furniture Forum," a quarterly started in 1949, contains a nearly complete presentation of good contemporary American furniture, plus several of the standard modern fabrics, accessories, and lamps. In reality a catalog obtainable by subscription, this publication contains not only photographs of all pieces, their prices, dimensions, species and finishes of wood, colors, fabrics, etc.; it also includes thumbnail biographies of the designers, and addresses of both manufacturers and retailers. The more recent issues include brief articles by designers in various fields. These aren't long, and every designer has pet subjects concerning which he can often write entertainingly and sometimes profoundly. But even though this reviewer agrees thoroughly with Alvin Lustig, for instance, when that able dialectician squares off versus the current preoccupations with superflexibility and super technology, is a catalog the place for expressions of opinion? Aside from this, and an occasional bit of typography so carefully designed as to be unreadable, the quarterly catalog deserves a big hand. We venture the guess that it would save every architect who buys furniture for his clients many times the cost of a subscription.

NEW EDITIONS

Architectural Practice. By Clinton H. Cowgill, A.I.A., and Ben John Small, A.I.A. Reinhold Publishing Company (330 West 42nd St., New York 18, N. Y.), Revised Edition, 1949. 8½ by 11½ in. 422 pp. illus. \$12.50.

Originally published in January, 1948, this manual for the practicing architect has now been brought up to date with recent changes in registration requirements, new sample examinations, and new material on professional liability insurance in the contracts section. Two new features are the results of a study

(Continued on page 30)



Stop and Prevent Rust
with
RUST-OLEUM



RUST can be stopped

... stopped easily, surely, economically!

RUST-OLEUM is the answer. For 25 years it has proved its capacity to stop and prevent rust at sea, in fume-choked industrial areas, on railroad rolling stock, bridges and signaling equipment.

RUST-OLEUM . . . an exclusive formula . . . protects metal with a tough, long-lasting pliable film that dries to a hard, firm finish that defies rain, snow, salt air, fumes and weathering. It adds years of extra use to metal roofs, tanks, sash, fences, stacks, gutters, downspouts, machinery and other metal surfaces.

RUST-OLEUM decorates as well as protects. It is available in all colors, aluminum and white. It can be applied to metal where rust has already started. You don't have to remove all the rust.

RUST-OLEUM is stocked and sold by Industrial Distributors in most principal cities. See our complete catalog in Sweets, or write for full information.

RUST-OLEUM CORPORATION

2479 Oakton Street, Evanston, Illinois

**NEW
OPPORTUNITIES
FOR MODERN DESIGN**

Made Possible by
PERMACLAD
STAINLESS CLAD STEEL

The Finer
The Finish The
Finer The Product
For The Finest Finish
Use
PERMACLAD

PERMACLAD
STAINLESS CLAD STEEL

A Product of **ALAN WOOD STEEL COMPANY**
Conshohocken, Pa., Dept. 20

Gentlemen: Please send me more information and Free literature about Permaclad

Name _____ Title _____
Company _____
City _____ State _____

Other Products: A. W. ALGRIP ABRASIVE Floor Plate • A. W. SUPER-DIAMOND Floor Plate • Billets
Plates • Sheets • Strip • (Alloy and Special Grades).

REQUIRED READING

(Continued from page 28)

of the rating of architects and draftsmen made by the Michigan Society of Architects, and the findings of a survey on product specification.

Planning: The Architect's Handbook. By S. Rowland Pierce and Patrick Cutbush. Iliffe & Sons, Ltd. (Dorset House, Stamford St., London S.E. 1, England), Sixth Edition, 1949. 8½ by 10¾ in. 487 pp. illus. 21 s.

Many sections of the book have been enlarged in this new Sixth Edition, and the page size has been reduced, making the volume easier to handle.

The Autobiography of An Idea. By Louis H. Sullivan. Peter Smith (321 Fifth Ave., New York 16, N. Y.), Third Printing, 1949. 5½ by 8½ in. 330 pp. \$3.50.

The publication of Frank Lloyd Wright's *Genius and the Mobocracy* makes timely this new printing of the Sullivan apologia, made from the original 1924 plates by arrangement with the American Institute of Architects.

PIONEER ARCHAEOLOGIST

Frederick Catherwood Archt. By Victor Wolfgang von Hagen, with introduction by Aldous Huxley. Oxford University Press (114 Fifth Ave., New York 11, N. Y.), 1950. 6 by 9½ in. 177 pp. + 31 plates. \$5.00.

Best known for his drawings of Mayan culture, the British artist and archaeologist Frederick Catherwood seems to have pursued a career of unique accomplishments coupled with a strange fate of misfortune and obscurity.

With the noted explorer John Lloyd Stephens he published the first authentic accounts of Mayan culture in their two books on "Incidents of Travel" and in his own book, "Views of Ancient Monuments," all appearing in the mid-1840's. More than a dozen years' study in Rome, Greece, Egypt and the Holy Land enabled him to place his Central American discoveries both in time and in origin with an accuracy supported by later research.

Mr. von Hagen has put together from almost non-existent records an interesting account of this strange figure who also built for New York its first Panorama and for South America its first railroad. Inclusion of the Introduction and 25 lithographs of the "Views" adds a flavor of Catherwood's individuality.



Archts. Elmer C. Carlson & Associates, Chicago



Archt. Edward Steinborn, Chicago

BIG OR LITTLE the store with the distinctive Brasco Front is quickly identified and well remembered. The wide range and versatility of Brasco store front metal permits unusual latitude in individualistic architectural treatment with standard stock members.

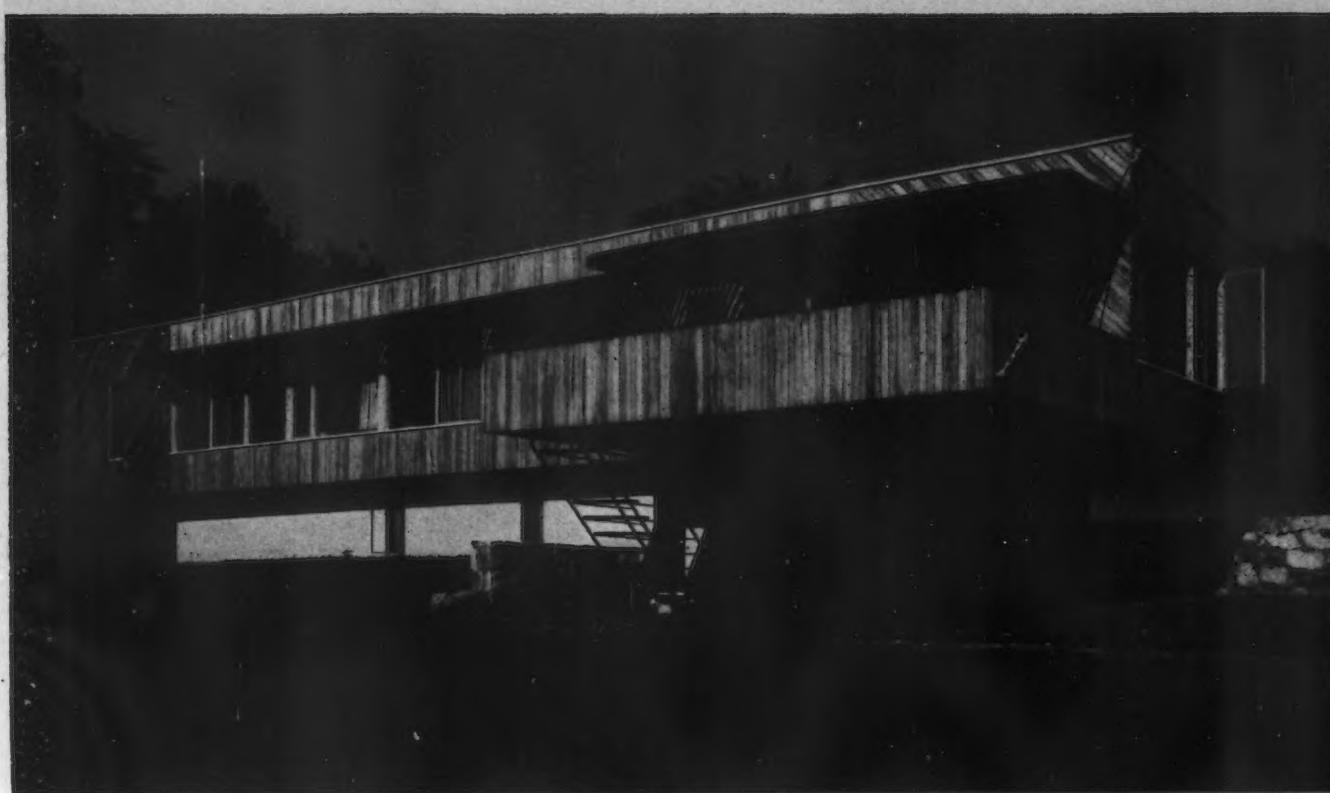
Here is heavy gauge rolled construction, soundly engineered to provide enduring strength and maximum glass protection. In both stainless steel and anodized aluminum Brasco sections are expertly fabricated and handsomely finished.

Classic styling completes the picture, blending beautifully with modern facing materials . . . another reason why Brasco Store Fronts are the number one choice of outstanding architects and their clients. New 1950 catalog and details portfolio immediately available on request.

BRASCO MANUFACTURING CO.

HARVEY • (Chicago Suburb) • ILLINOIS

Specialists in Metal Store Front Construction for more than 40 Years



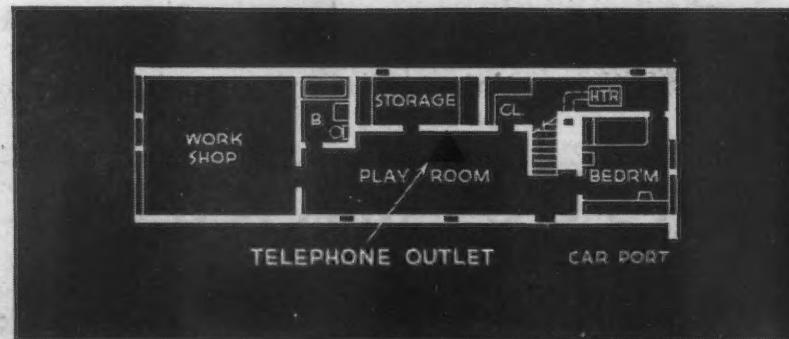
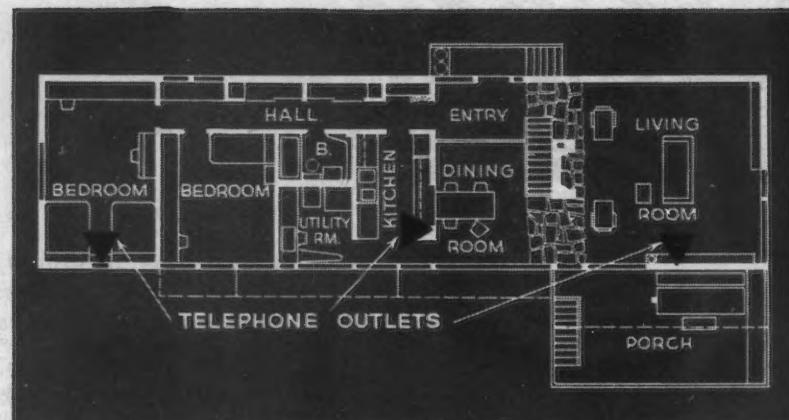
MARCEL BREUER, Architect

HOMES WITH A FUTURE HAVE TELEPHONE RACEWAYS

Modern home planning considers the future as well as the present needs of the owner. Telephone raceways conceal telephone wires within walls. They also provide for the relocation or addition of telephones later on.

It's easy and inexpensive to provide for telephone facilities during construction. A few lengths of pipe or tubing placed in the walls will carry telephone wires to outlets located at key points throughout the house.

Your Bell Telephone Company will be glad to co-operate in planning telephone raceway systems. Just call your nearest telephone company Business Office and ask for "Architects and Builders Service."



BELL TELEPHONE SYSTEM



Design
a

*Graceful
Welcome*

into
clients'
homes



Every home owner wants his floors to provide the rare combination of tasteful, unusual beauty and serviceable, down-to-earth durability.

Next time that problem comes up, specify Flexachrome*. You'll give your client everything he wants in a floor.

This modern, plastic-asbestos flooring material really provides what its name implies... *flexible color*. Its flexibility assures quick and permanent adhesion to all types of sub-floors. And you've never before seen such color in resilient flooring. 33 rich, vivid, *true* colors to lighten, brighten and beautify any room in the house.

Tile-at-a-time installation gives you wide latitude in design... stripes, plaids, basket-weave, or any other pattern your clients want.



Custom-cut inserts enable you to personalize Flexachrome floors.

Flexachrome's durability is exceptional, too. You can reassure your clients that, properly installed, his Flexachrome floors will last the life of his home. And, because it's greaseproof, Flexachrome is ideal for kitchens and dining areas... or any area where grease is a problem. Maintenance is easy, and those who prefer unwaxed floors will be delighted to discover that Flexachrome retains a soft, satiny beauty merely with dry buffing and an occasional steel wooling.

Let us send you complete details on Flexachrome and other Tile-Tex products. THE TILE-TEX DIVISION, The Flintkote Co., Dept. R, 1234 McKinley St., Chicago Heights, Ill.

*REGISTERED TRADEMARK, THE FLINTKOTE COMPANY

Tile-Tex
PLASTIC-ASBESTOS
FLOORS AND WALLS

OUR BUSINESS IS IMPROVING YOUR BUSINESS

HERE'S HOW WE DO IT... .

Each York product is designed to cut costs, improve service, make a profit for those who install it. And in all your planning for clients, remember that any business can be made a better business with York air conditioning and refrigeration. York gives you really skilled help on every job, from the preliminary outline to the final installation. With York you get experienced aid all the way through, with full cooperation from a national organization that maintains branch offices and trained engineers throughout the country.

"See Your Architect, Engineer, Contractor, First"

York believes in channeling contract work through *You . . .* and York gives you unequaled support in providing the owner with the finest central station system possible.

- a complete line of equipment
- competitive prices
- accurate, dependable product ratings
- technical assistance based on "case histories"
- cooperation with architects, engineers, and contractors
- practical help from York-Trained Engineers
- a national organization
- continuous product research and development
- certified maintenance

York engineers have at their command an inexhaustible supply of practical information gathered from thousands of successful York-equipped installations. This information and their services are at *your* disposal. If you are "planning" any work involving air conditioning or refrigeration, call your nearest York Office. You get impartial, experienced help from the start. Or write York Corporation, York, Pennsylvania.



PIONEERS IN INVENTION AND DEVELOPMENT SINCE 1874

Refrigeration and Air Conditioning

HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885

1 TO 42
CIRCUITS

SQUARE D MULTI-BREAKERS

for Lighting and
Appliance Loads



Coilless

THERMAL-MAGNETIC. Thermal element deflects in proportion to temperature of wire insulation resulting from both surrounding air and losses within the conductor. Magnetic element responds instantly to heavy overloads or shorts. Both are needed for complete protection.

REPEAT PROTECTION. Nothing burns out . . . nothing to replace. No live parts are exposed. Anyone can quickly restore service.

NON-TAMPERABLE. Factory test-tripped and sealed. Eliminates well-intentioned but dangerous "doctoring" to accommodate higher loads.

SWITCHING. Circuits can be manually switched "ON" or "OFF" in addition to the automatic "TRIP" and manual "RESET" protective functions.

CONVENIENCE. Multi-breakers are attractive and occupy very little space. Mount them in any location. Provide for future expansion.

Write for Bulletin SA590. Square D Company,
6060 Rivard Street, Detroit 11, Michigan.

flexible

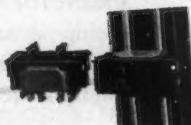
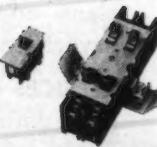
Basic multi-breaker mechanism lends itself to either single or multi-pole construction.

Types MO 1, MO 2 and MO 4 for branch circuits and small homes where high volume and low cost are controlling factors. Similar parts are assembled in 1, 2 and 4 pole blocks.

Type MO 8 for average homes. 4 pole basic block meets minimum requirements. "Ad-On" single pole breakers increase total to 5, 6, 7 and 8 circuits as required.

Types MO 12 and MO 20 for larger homes. "Plug-In" 2 or 4 pole breakers cover the range of 4 to 20 circuits.

MO Panellets and NMO Panelboards extend range to 42 circuits for stores, institutions, buildings and factories.



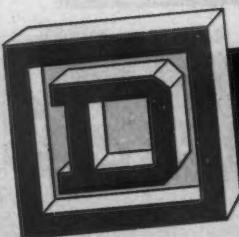
SQUARE D COMPANY

DETROIT

MILWAUKEE

LOS ANGELES

SQUARE D COMPANY CANADA LTD., TORONTO • SQUARE D de MEXICO, S.A., MEXICO CITY, D.F.



For office, factory, school—wherever critical seeing or long use of the eyes is the practice—provide softly diffused daylight through Frosted Aklo Glass. Influx of solar heat is reduced by Aklo Glass for more comfortable working conditions.



Lighting at its best...**FILTERED DAYLIGHT**

There's no substitute for properly diffused daylight. With Blue Ridge Frosted Aklo* Glass in windows you provide daylight of pleasing quality that is easy on the eyes. Workers—in office or plant—enjoy an abundance of softly-diffused daylight without excessive solar heat.

REDUCES GLARE. Frosted Aklo Glass is a blue-green diffusing filter between the sun or sky and the eyes of workers. Aklo's glare reduction makes seeing more comfortable—less tiring. Easier seeing means better workmanship—faster production—fewer accidents.

RETARDS SUN HEAT. Aklo Glass absorbs nearly all the infrared radiation of the sun and re-radiates much of it externally. Interiors stay

cooler, providing more comfort and permitting lower air-conditioning costs.

Aklo Glass is manufactured by the Blue Ridge Glass Corporation of Kingsport, Tennessee, and sold through Libbey-Owens-Ford Glass distributors. To see for yourself how Frosted Aklo Glass reduces glare and sun heat, ask your distributor for a Radiometer demonstration.

**Free Book on Reduction
of Sun Glare and Heat.**

Write to Blue Ridge Sales Division, Libbey-Owens-Ford Glass Company, 9025 Nicholas Building, Toledo 3, Ohio.

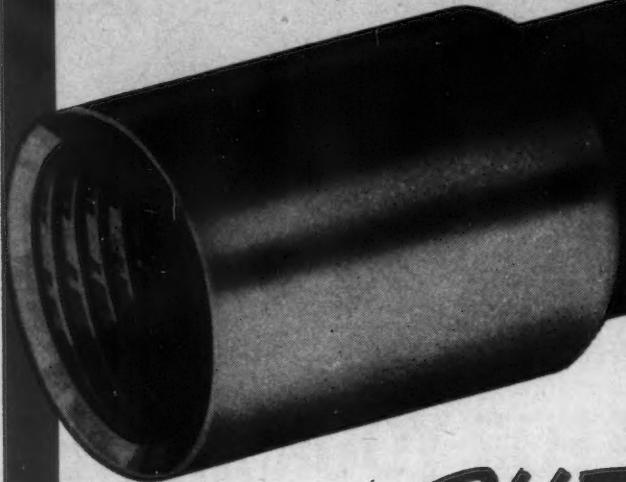


BLUE RIDGE AKLO GLASS

Heat Absorbing • Glare Reducing • Figured and Wire Glass



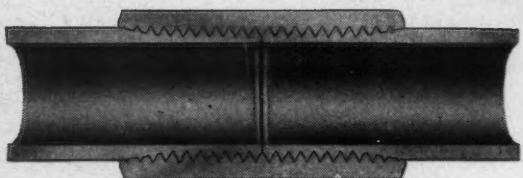
**IT'S FORTIFIED FOR
LIFE-TIME PROTECTION**



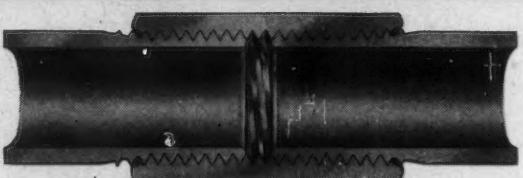
SPECIFY

**NATIONAL ELECTRIC
SHERARDUCT**

To Keep Wiring Safe, PERMANENTLY



SHERARDUCT COUPLING—All surfaces and threads are Sherardized. Accurately undercut threads permit completely closed joints—no raw threads exposed—no gaps to interfere with the easy fishing of wires.



ORDINARY COUPLING—Raw threads meet raw threads—accelerates rust—weakens joint. Threads exposed in gaps trap wire ends and make the fishing of wires difficult.

FULL WEIGHT . . .

THREADED . . .

RIGID STEEL CONDUIT

When the job calls for a conduit that must withstand the test of time—there's only one *Sherarduct*! *Sherarduct* is a rigid steel conduit that is permanently rust-proof. The zinc protective coating alloyed to the steel by the special Sherardizing process will not crack or peel. *Sherarduct* is heavy-walled, threaded, smooth inside to assure easy fishing.

**National Electric
PRODUCTS CORPORATION
1327 CHAMBER OF COMMERCE BLDG., PITTSBURGH 19, PA.**





FOR YOU TOO... MORE FOR YOUR MONEY

—Especially when you are in the market for panic exit devices.

By insisting on Von Duprin drop-forged devices you get:

1. Speed, ease and certainty of operation which bring by all odds the safest and surest means of exit you can put on a door.
2. The beauty of precise line, the strength of forgings, the mirror-like smoothness of these dense metals . . . all adding up to devices which add distinction to any doors, new or old.
3. Exceedingly long life, and remarkable freedom from upkeep or repair costs, bringing the overall yearly cost, over the life of the building, to the very minimum.

Top devices at bottom cost per year . . .
that's getting a lot for your money!



AND YOU GET THE VON DUPRIN X-BAR

The X-bar, of extruded bronze, adds strength and rigidity to the crossbar. It is standard on Types A2 and B2 drop-forged devices.



VON DUPRIN DIVISION, VONNEGUT HARDWARE CO., INDIANAPOLIS 9, IND.

Save Valuable Floor Space with...



Have the convenience and safety of permanent built-in seats... yet provide the maximum floor area for other purposes when spectator seats are not required. Medart telescopic gym seats occupy just 32 inches of floor space when in "nested" position! No special wall reinforcement necessary because load is distributed on the floor rather than wall.

NOTE THE MEDART "SAFETY FACTOR"

The understructure is made entirely of steel with uprights of double channel construction to give "I" beam vertical strength and balancing support. Spacer angles and cross channels are of steel. Selected lumber used throughout for seatboards, footboards and risers—full length—full width... one piece.

**Medart Telescopic Gym Seats Available In WALL ATTACHED...
MOVABLE...HIGH ROW (UP TO 20 ROWS HIGH) AND RECESSED TYPES**

Write for descriptive literature... send your
plans for suggestions.

SWEET'S FILE (ARCHITECTURAL) NO. 23g-3a and 23c-8a

FM50-1

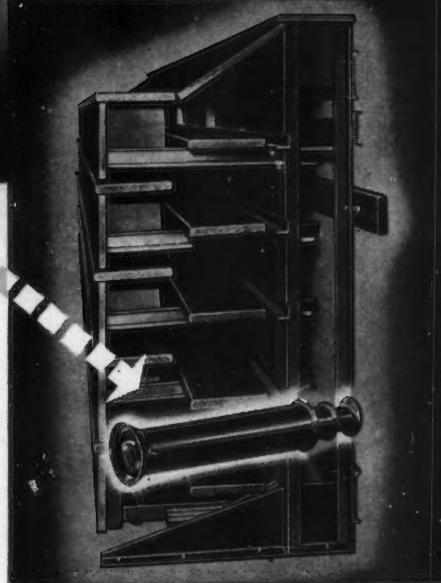


GRED MEDART PRODUCTS, INC.

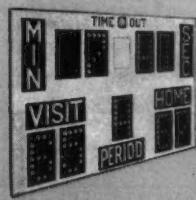
3540 DE KALB ST.

ST. LOUIS 18, MO.

Leadership for over 75 years in School Equipment



A complete line of
Basketball Back-
stops both stand-
ard and special
designs "tailored"
to meet any struc-
tural condition.
Write for descrip-
tive literature.



The very latest
design in Basket-
ball and Football
Scoreboards for
spectator visibility.
Write for descrip-
tive literature.

Specify

improved

SMOOTHEDGE CARPET GRIPPER →

carpet

SMOOTHEDGE CARPET GRIPPER →

installation

SMOOTHEDGE CARPET GRIPPER →

with **smoothedge**

RECOGNIZED AND AVAILABLE

NATIONALLY ★ Used by over 4,000

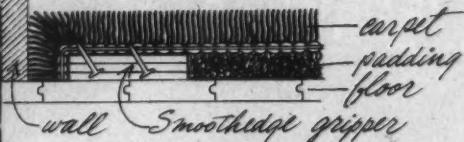
carpet retailers ★ Handled by 62 leading carpet distributors ★ Recommended by the carpet mills ("Smoothedge" installation technique is taught by Mohawk, Bigelow-Sanford, and Alexander Smith at their carpet mechanic schools.)

THE "WHY" OF *smoothedge*

"Smoothedge" seals the edges of the carpet to the floor. Eliminates ugly tack marks, bulges, "scallops," ripples, dust-gathering pockers, injury to carpets. Carpet is easier to take up for cleaning.

This is Smoothedge

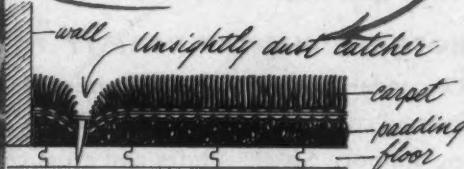
Carpet lays smooth to wall without a single tack mark



THE BEAUTIFUL YET INEXPENSIVE METHOD OF INSTALLING WALL-TO-WALL CARPET



Smoothedge prevents this



THE ROBERTS CO., Dept. A
1536 North Indiana Street • Los Angeles 33, California

Gentlemen:

- Please send detailed, illustrated literature on "Smoothedge" tackless installation.
- Also send "Smoothedge" A.I.A. file.

Name _____

Firm _____

Street _____

City _____ Zone _____ State _____

SPECIFY *smoothedge* TACKLESS INSTALLATION

"Smoothedge" solves the architect's carpet-laying problem. No special provisions required for either wooden or concrete floors. Merely state, "Carpet to be installed with "Smoothedge carpet gripper," or equivalent.

Quality School Construction

...UNDER 60¢ PER CU. FT.



Fenestra insulated "C" Panels used as a spandrel between windows of first and second floors. Four panels high. 14' long panels laid horizontally.

How Fenestra Steel Panels, Windows and Doors contributed to economical construction in the Robert N. Mandeville High School at Flint, Michigan.

Architects Bennett & Straight of Dearborn, Michigan, faced a familiar set of requirements:

- Large size, with a layout involving considerable perimeter for good day lighting.
- To be ready for fall occupancy.
- Limited budget, calling for low cubic-foot cost.

Convinced of the speed of erecting with Fenestra* Building Panels, the architects checked costs . . . saw how on-the-site labor could be saved if the building was planned specifically to use standard units to minimize special work.

They decided on a 7' module. Classrooms were established in a 28' width, with partitions spaced at 14', 21', 28' and 35' intervals. The structural steel frame was designed in a bay size of 14' x 28', saving weight in steel. Saving in roof construction was achieved with standard Fenestra Type D Panels on the 14-foot span. Standard Type C Panels formed spandrels between floors and the window walls of Fenestra Intermediate Projected Windows.

For the roofs of the 100' x 100' gymnasium and the shop, Fenestra Acoustical Holorib Roof Deck was used. This provides a surface for application of roofing materials. The underside provides a sound-absorbing, perforated surface. It is noncombustible, and being steel, withstands impact. Holorib was used as the permanent reinforcing form for the seats in the spectator stands of the gymnasium.

Fenestra Panels—Fenestra Windows—Fenestra Doors—combined in this structure to help the architects and contractor achieve their triple goal of a sizable, sound structure, speedily erected, at low cost.

Your local Fenestra representative can help you capitalize on the time and money savings of these standard building components. Call him or mail the coupon below for full information.

*®

Exposed corridor roof shows Fenestra "D" Panels laid flat side down. Main roof area under panels at right was finished with suspended plaster ceiling. Roof was finished over a large area early in construction.



Exposed ceiling of structural Building Panels wall to wall. Factory prime-painted, Panels provide a smooth surface, economically finished by adding a coat of paint. Attractive, noncombustible. Note Fenestra Hollow Metal Doors, Fenestra Intermediate Windows.

Architects: Bennett & Straight
Dearborn, Michigan.
Contractor: Carl B. Foster,
Flint, Michigan.

Fenestra

Panels • Windows • Doors

DETROIT STEEL PRODUCTS COMPANY
Building Panels Division
Dept. AR-2, 2252 E. Grand Boulevard
Detroit 11, Michigan

- Please have an engineering representative call.
 Please send me, without obligation, information on Fenestra:

Building Panels Steel Windows Metal Doors

Name _____

Company _____

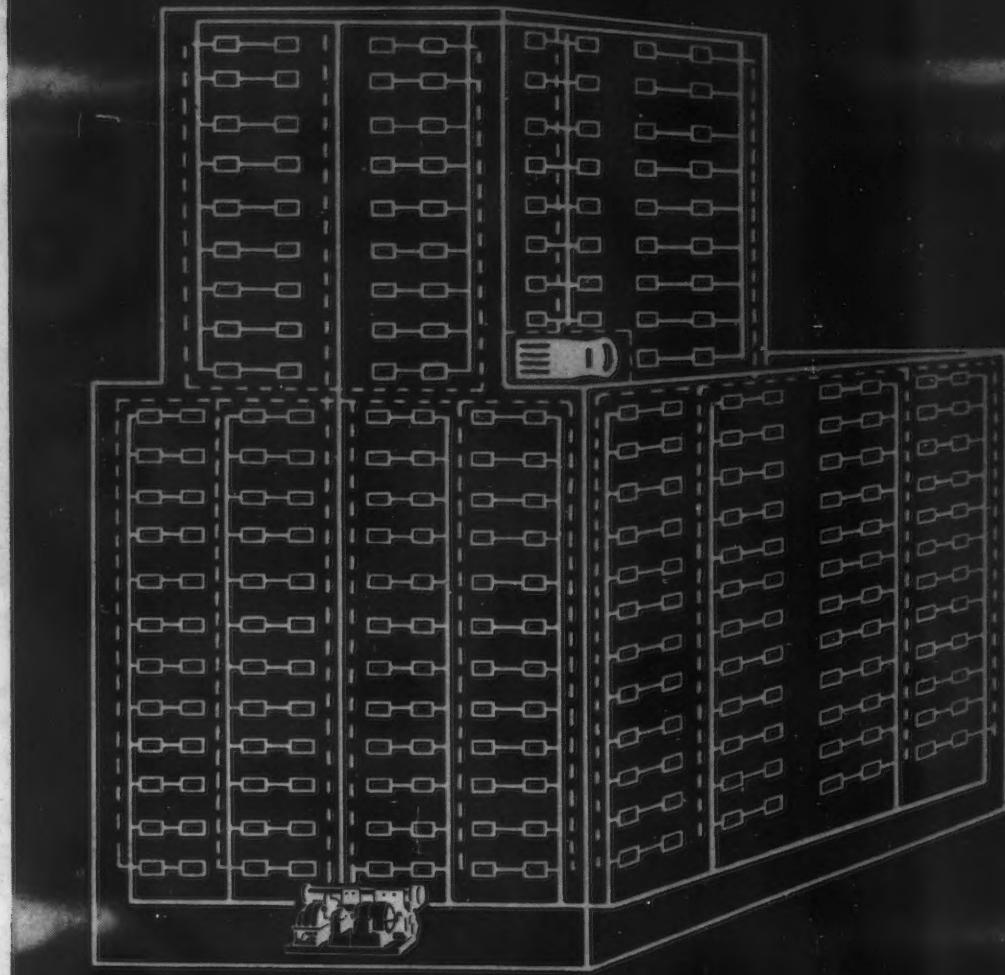
Address _____

***Patients' rooms**
Recovery accelerated.
Heat depression eliminated.
Patients rest more comfortably.

***Operating rooms**
Control of humidity reduces hazards from static electricity. Comfortable conditions increase staff efficiency.

***For Personnel**
Attracts and holds a better type of employee.
Adds to work accomplished per employee.

***For Management**
Heating bills reduced.
Cleaning costs cut.
Revenues increased.



*The "x-ray" shows how the Carrier Conduit Weathermaster System reaches out to hundreds of individually controlled units from a central source.

"X-RAY" OF A MODERN HOSPITAL

THIS "x-ray" shows the healthy state of affairs in a hospital air conditioned by the Carrier Conduit Weathermaster System. Invented by and exclusive with Carrier, this system is ideal for hospitals. A twist of a dial in each room provides individual control of temperature all year round.

The Carrier Conduit Weathermaster System provides other important advantages. It can be installed without interrupting hospital functions. Small-diameter conduits take the place of space consuming ducts—require only about 15% of the space. For information about the Conduit System—and a wide variety of other Carrier air conditioning and refrigeration equipment for hospitals—call your Carrier representative. Or write Carrier Corporation, Syracuse, N. Y.

Among our products serving many famous hospitals are Carrier Reach-in Refrigerators for blood banks; refrigeration for kitchens; air conditioners for operating rooms, cafeterias and public spaces; and Weathermaster Systems for the comfort of the entire institution.

Carrier

AIR CONDITIONING
REFRIGERATION
INDUSTRIAL HEATING



This Hospital is Endowed with

PATCHING and repainting ordinary hospital walls is a never-ending expense. But hospitals having Hauserman *Movable Steel Interiors* virtually eliminate this constant maintenance cost.

That's because Hauserman *Movable Steel Interiors* have a baked-on finish that won't chip, crack, warp or scale. This eliminates frequent patching and repainting. It means that a janitor can easily perform all the normal maintenance required . . . occasional soap and water washing.

Hauserman *Movable Steel Interiors* also assure efficient operation for the life of the building. Hauserman Steel Partitions can be easily moved

LOW MAINTENANCE COSTS

whenever alterations or additions will make new floor layouts desirable.

A Hauserman representative will be glad to discuss these and all the other advantages of Hauserman *Movable Steel Interiors* with you, your architect and your contractor. Just call the Hauserman office or representative nearby or contact *The E. F. Hauserman Company, 6776 Grant Avenue, Cleveland 5, Ohio*. Or, if you prefer, we'll send you our fully illustrated 60 page catalog.



Organized for
Service Nationally
Since 1913



Partitions • Wainscot
Railings • Acoustical Ceilings
Complete Accessories

YOU CAN BE SURE.. IF IT'S
Westinghouse



STOP!

...have you planned
the power distribution system?

Designing a new production area? Everything laid out to do the job you've planned? Sure it is.

BUT . . . have you planned for the *best system* to power the new production lines? Their ability to produce depends directly on this power system.

Will the distribution system save your client money *over a period of years*? Have you thought about *future loads*? Is it flexible enough to handle shifting production lines?

Will it provide the voltage regulation needed?

Whatever the problem—Westinghouse can help you find the "one best" system for the plant you're designing.

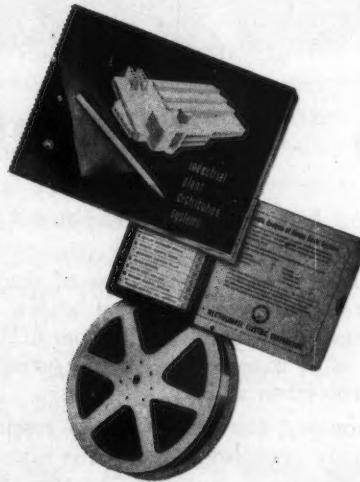
Our engineers have worked with *all types* of industries for a good many years. They've found new and better answers to *all phases* of power distribution. Westinghouse offers this co-operation to all architects in getting power to do the best job at the lowest possible cost.

J.94788-A

Here's REAL help for your "System Planning"

1. A New 34-Page Booklet: "Industrial Plant Distribution Systems" B-4045. Fact-filled pages and colorful diagrams present the basic systems most widely used in Industry today. Find out how to choose the *best system* for the plant you're designing.
2. System Selector: A wealth of information condensed to a pocket-sized selector! In a matter of minutes you can make preliminary decisions on the system that answers your requirements.
3. Color Movie: Get all the facts visually! This 16-mm, full-color movie is a 20-minute dramatization that will point the way to new economies in plant power distribution. Ask one of our representatives for a free showing of "The Right Power Distribution System". No obligation, of course.

Get this key information on system planning NOW. Call your nearest Westinghouse office. Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania.



*What would
HIS chances
be . . .*



in case of a HOSPITAL FIRE?

In case of fire, his chances might not be too good in many hospitals today.

Each day there are three fires of record in hospitals and institutions, and in those where fatalities occur an average of five lives are lost per fire! Isn't this proof positive that many trusted precautions are not adequate protection at all?

Unfortunately, too many people responsible for protection rely completely upon the elimination of ordinary fire hazards, important as this is. All too many more depend upon "fireproof" construction. Two facts show this to be false confidence: "Carelessness with matches and in smoking" continues to be the greatest cause of fires . . . and so-called "fireproof" buildings continue to become furnaces for flammable contents.

What most people ignore is that, regardless of the cause of fire, regardless of the building construction, it is the *proper control of fire from the first spark that constitutes full and adequate protection against fire*.

Needless loss of life and property can be prevented by checking fire at its source, whenever and wherever it

starts, night or day, automatically, with a Grinnell Automatic Sprinkler System. Seventy years experience shows that practically 100% of fires starting in buildings protected by Grinnell Automatic Sprinkler Systems are extinguished before doing material damage. Fire experts will tell you that your best protection against fire in any building is automatic sprinklers.



SEE THAT GRINNELL SPRINKLER HEADS ARE ON GUARD

In hospitals, as well as in schools, hotels, theaters and factories, there is a moral obligation upon management for the utmost in protection of life and property. For your own sake be sure the hospitals, the hotels, the plants, and the schools for which you are responsible are protected with the famous Grinnell Automatic Sprinkler heads—your assurance of positive, automatic protection against fire. Grinnell Company, Inc., Providence, Rhode Island.

GRINNELL
FIRE PROTECTION SYSTEMS

*Nearly 1000 skilled
plywood workers stand
behind this trademark*

A PRODUCT is judged by quality of materials, quality of manufacture, quality of the men who make, sell and service it. Materials at Associated Plywood Mills are unexcelled—Douglas fir that grows sound and big in the moist Oregon climate...Associated plywood plants are models of efficiency in the industry...And Associated employees, nearly 1000 strong, are experts in their craft, with special skills and long experience.

The plywood they make is trademarked and trademarked—double guarantee of quality on both exterior-type and interior-type panels manufactured by this company.

APMI plywood is available at sales warehouses situated in the nation's important population and building areas. It is sold and serviced by men who know plywood uses, and who would be happy to receive your inquiries for general information, for prices, for delivery schedules.

APMI SALES WAREHOUSES Eugene and Willamina, Oregon San Francisco, 925 Toland St., 24 Dallas, 4814 Bengal St., 9 St. Louis, 4268 Utah St., 16	APMI stock } Lengths: 60" 72" 84" 96" 108" 120" 144" Panel Sizes } Widths: 24" 30" 36" 42" 48"
---	---

ASSOCIATED
PLYWOOD MILLS, INC.
GENERAL OFFICES: Eugene, Oregon

PLYWOOD PLANTS AT EUGENE AND WILLAMINA, OREGON

now ALL GUTH

for **4**-foot

+LIGHT AT THE FLICK OF THE SWITCH

Here's the biggest fluorescent news in years: you can now use the new 4-ft., 425 ma. T-12 Slimline Lamps in every fixture of the entire GUTH fluorescent line. And the 4-ft. Slimline is efficient! Same lumen output per foot as the 8-ft. Slimline.

+NO STARTERS

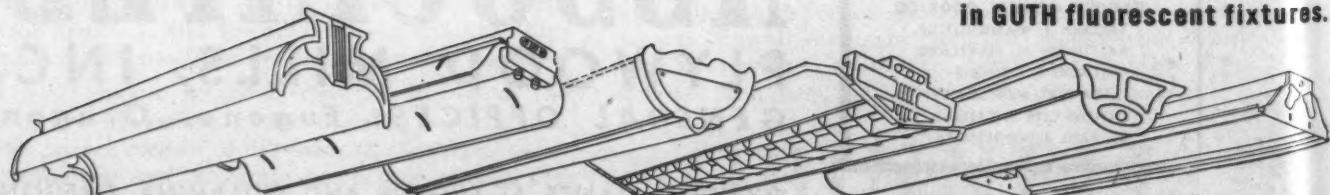
+E

For fu
call y

Now you have your choice:

- **the 4-ft. Slimline**
- **the 8-ft. Slimline**
- **standard 40-W lamps**
- **standard 85-W lamps**

in GUTH fluorescent fixtures.



H FIXTURES SLIMLINE LAMPS

PUSH-PULL--IT'S IN

New
single-pin lamps,
sockets
and ballast

PUSH-PULL--IT'S OUT

+EASY TO HANDLE

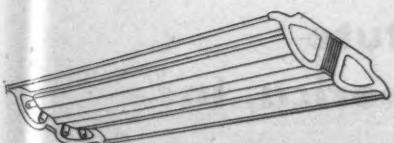
For full details,
call your nearest GUTH resident engineer or write

YOUR TEAMMATE
IN
precision-planned
LIGHTING

Guth
LIGHTING

THE EDWIN F. GUTH COMPANY / ST. LOUIS 3, MISSOURI

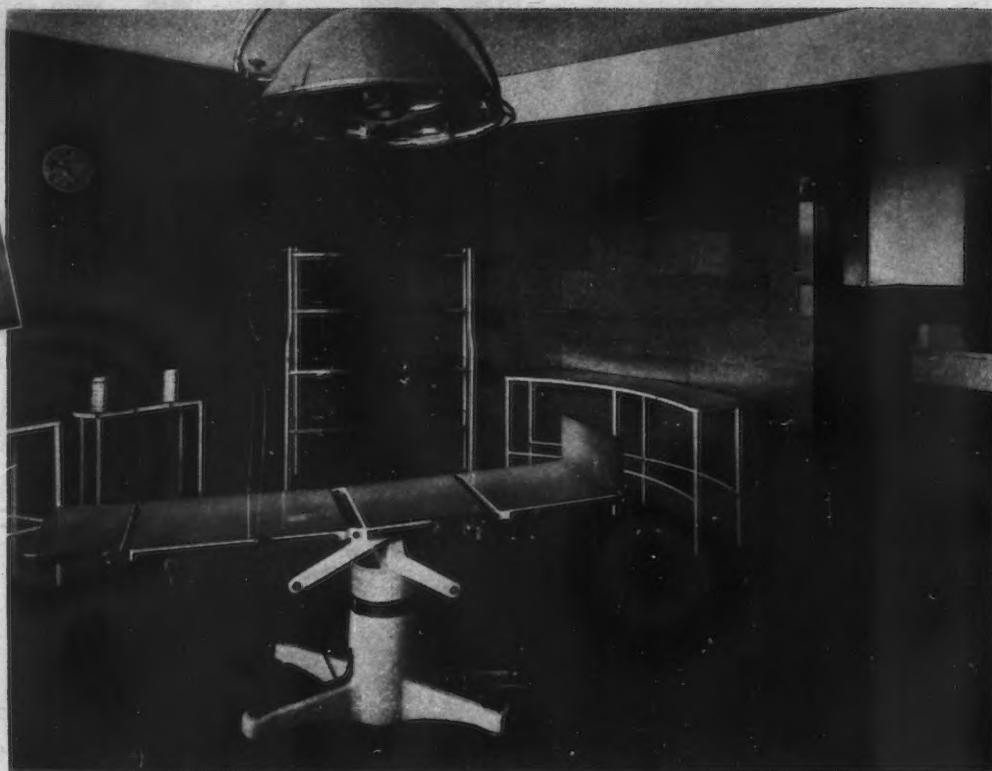
Leaders in Lighting Since 1902



TRUCOLETE*

marble

the Doctor's first assistant!



In every part of the Hospital, Cleanliness must be above suspicion—a Cleanliness in operating rooms, laboratories, wards, corridors, toilets, kitchens and reception lobbies, that extends beyond mere appearance and approaches the standards of sterilization established for bandages and surgical instruments.

Marble meets fully all such demands. It is the easiest and cheapest of building materials to maintain or keep clean.

*Write for latest literature
on foreign and domestic
marbles.*



**Marble Institute
of America, inc.**

108 FORSTER AVENUE, MOUNT VERNON, N. Y.

**NOW... "Preview" Tile Installations ...
Copy Complete Specifications ...**



with the new
"COLOR BOOK OF TILE"
Free to All Architects

Selecting and specifying tile becomes easy with the COLOR BOOK OF TILE. No guesswork! You can show your clients typical installations in actual colors, with alternate floors and walls to choose from. No lost time! You can copy verbatim the complete, 42-word specifications given for each installation.

There's no other book like the COLOR BOOK OF TILE—none so complete and easy to use. Simply open the front and back sections *side-by-side*, and you have before you selected full-color illustrations of kitchens, baths, powder rooms and game rooms, with a variety of alternate

colors and patterns of all types of tile to consider for any installation. Other pages display a wide selection of American-Olean wall and floor tile, hand decorated tiles and bathroom accessories, with complete specifical details.

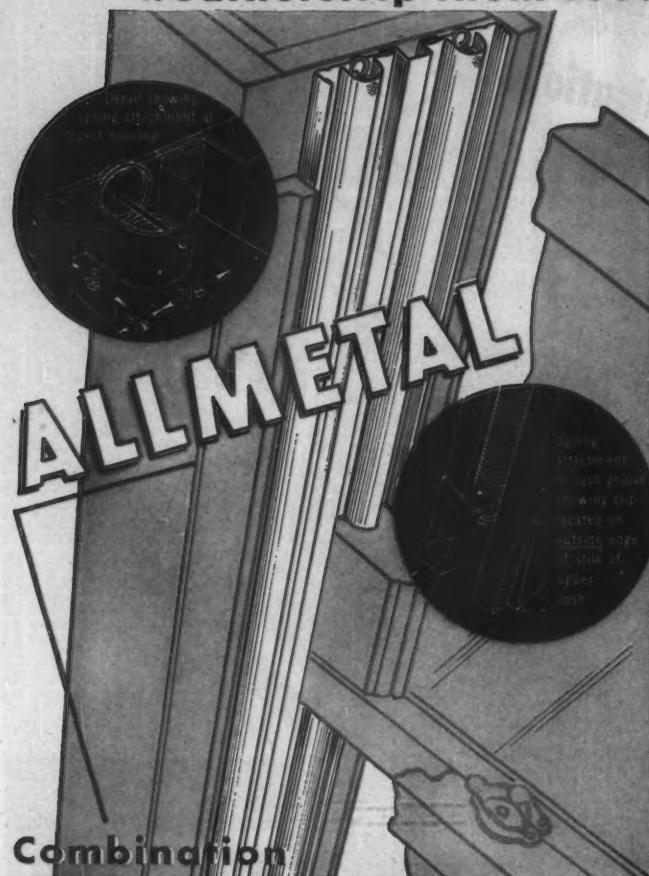
Copies of the COLOR BOOK OF TILE have been sent to most architects. Write us on your business letterhead if you have not received your copy, or if you need an extra one for a member of your staff.

American-Olean Tile Company

Executive Offices

925 Kenilworth Avenue • Lansdale, Pennsylvania

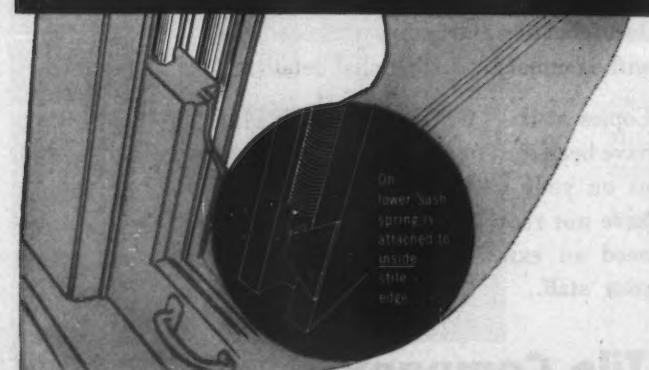
**This is the way to
balance windows . . . and
weatherstrip them too!**



Combination

SASH BALANCE AND WEATHERSTRIP UNIT

Do two jobs at once on any double-hung window. Here is an installation on an economy frame giving an all metal sash run. Or simply "cap" old or new wood parting beads. Allmetal Sash Balance give stable sash — provides finger-tip control — cuts labor and material costs and provides better windows by weatherstripping as well as balancing. Send for complete information now.



ALLMETAL WEATHERSTRIP CO.

2239 North Knox Avenue, Chicago 39, Illinois

Gentlemen: Please send me complete information and prices.

Name _____

Address _____

City _____

Zone _____ State _____



*Brings out **Beauty**
that Brings in Business*



Club Casbah, Chicago, Ill.

Beauty is a practical business-building feature with Duran all-plastic. It is expressed in Duran colors specifically created to meet known preferences—in its yielding pliancy that gives unmatched comfort on furniture, booths and stools.

There is practical beauty, too, in Duran's handsome finishes bringing new style effects to paneling... lustrous Duran surfaces can be kept fresh and free from stains with the occasional use of soap and water.

For upholstery beauty that brings in business, specify Duran!

THE MASLAND DURALEATHER COMPANY
3236-90 AMBER STREET • PHILADELPHIA 34, PA.

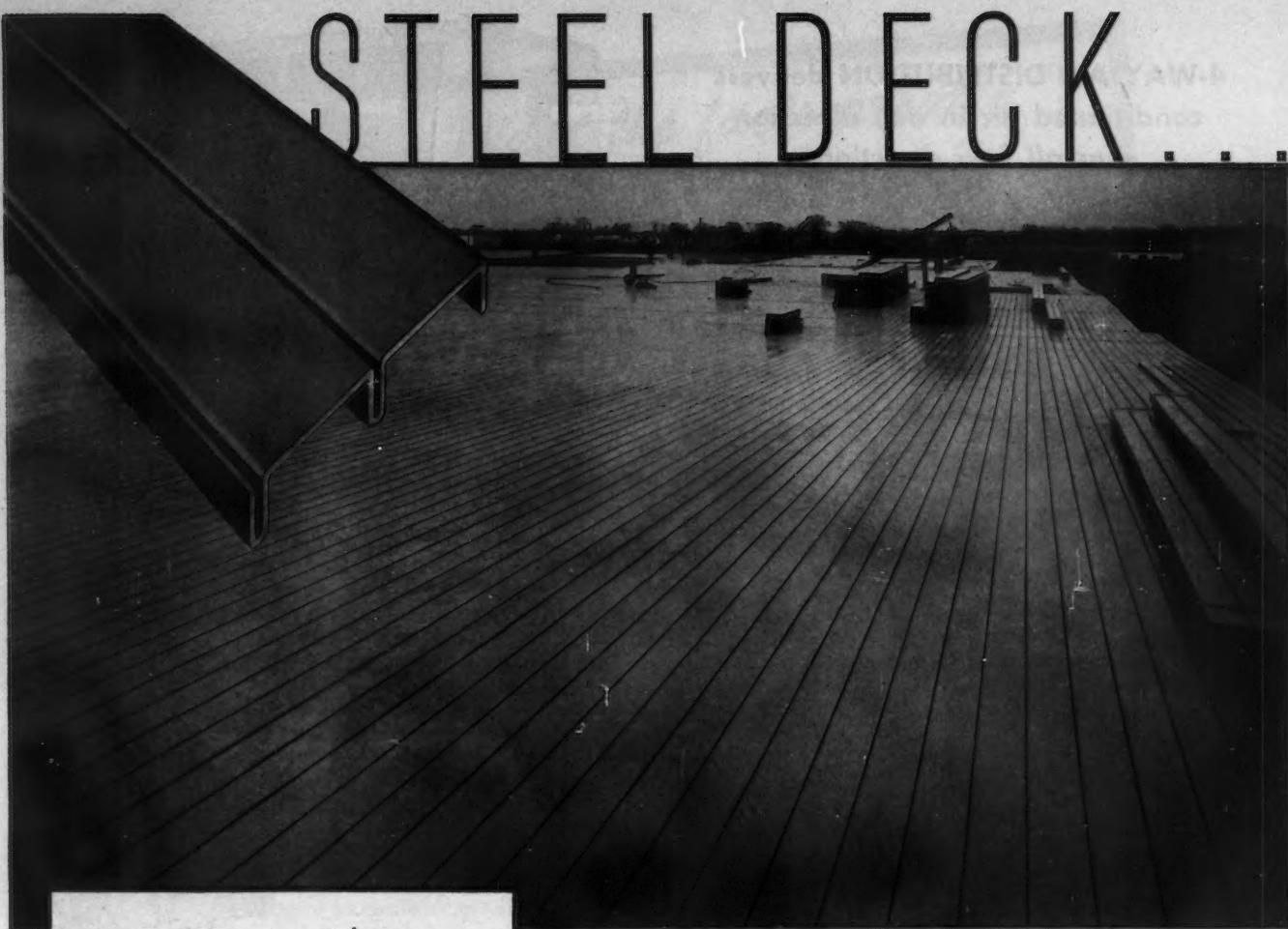


Resists damage from spills
— easily cleaned.

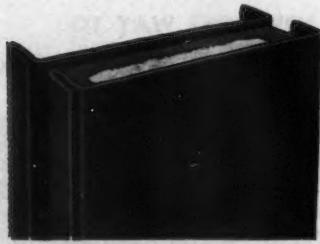


No flaming—self extinguishing
from flame.

STEEL DECK



INSULATED STEEL WALL
(FIELD CONSTRUCTED)



INSULATED STEEL WALL PANELS
(PREFABRICATED)

INSULATED STEEL WALLS

Mahon Insulated Steel Walls are Available in Two Types as Illustrated Above. Heat Transmission Coefficient "U" Equivalent to 18" Solid Masonry Wall.

Installation of 180,000 sq. ft. of Mahon Steel Deck in roof construction of the new building for Dearborn Motors Corporation, Birmingham, Mich. Giffels & Vallet, Inc., Architects. Cunningham-Limp Company, General Contractors.

180,000 Sq. Ft. of Mahon Steel Deck on New Building for Dearborn Motors!

In addition to providing the most practical and economical light weight, firesafe roof for many types of buildings, Mahon Steel Deck is employed extensively for curtain walls, ceilings, partitions, and permanent concrete floor forms. Every day, alert designers and builders are finding Mahon Steel Deck ideally suitable for more and more uses in building construction . . . this is a natural development, because, Mahon Steel Deck, due to its basic design with narrow vertical-leg stiffening ribs, lends itself to a broader range of uses in modern construction. See Mahon's Steel Deck Insert and Mahon's Insulated Steel Wall Insert in Sweet's Files for complete information, specifications and construction details, or write for Catalogs B-49-A and B.

T H E R . C . M A H O N C O M P A N Y
DETROIT 11, MICHIGAN • CHICAGO 4, ILLINOIS

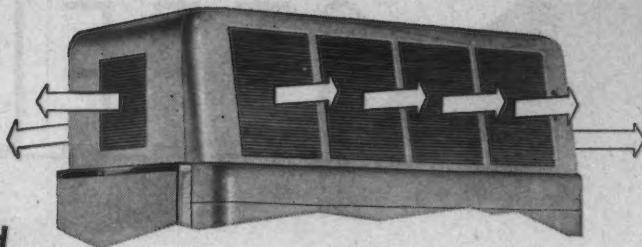
Representatives in all Principal Cities

Manufacturers of Steel Deck for Roofs, Partitions, Ceilings and Floors; Insulated Steel, Stainless Steel, or Aluminum Walls and Wall Panels; Rolling Steel Doors, Grilles, and Underwriters' Labeled Rolling Steel Doors and Fire Shutters.

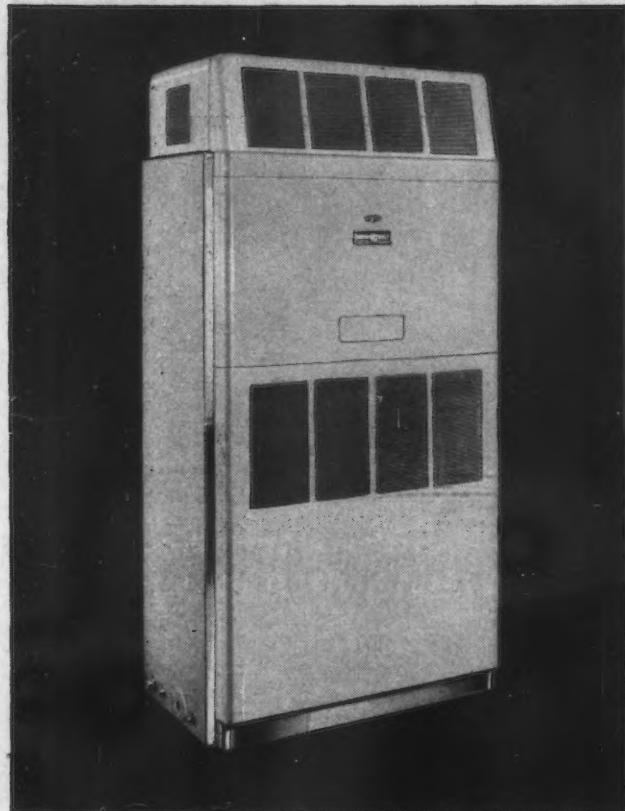
M A H O N

4-WAY AIR DISTRIBUTION delivers
conditioned air in any direction
— or all four directions

—one big reason why YOU CAN'T MATCH

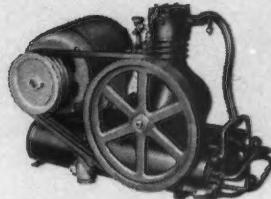


FRIGIDAIRE AIR CONDITIONERS!

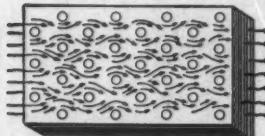


Yes, four-way selective air flow is a *big* reason for specifying Frigidaire Air Conditioners. Four grilles front and back and one on each side of the removable hood can be individually set to deliver conditioned air in any direction. Result—greater flexibility in locating units and simplified installation.

Ask your dependable Frigidaire Dealer to tell you about *all* the advantages of Frigidaire Air Conditioners. He'll also be glad to tell you about Frigidaire Room Conditioners and Central Systems. Look for his name in your Classified Phone Book, under "Air Conditioning" or "Refrigeration Equipment."



Styling by Raymond Loewy gives Frigidaire Self-Contained Air Conditioners their smartly modern appearance. They're finished in two-tone gray to harmonize with any surroundings.



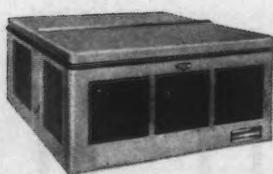
Multipath Cooling swirls air through a maze of cold, reduces room temperature and humidity extra-fast, extra-evenly. High efficiency cooling unit.

Frigidaire Compressor is especially designed for these Self-Contained units—precision-matched with cooling unit and controls for low-cost, trouble-free service.

Thick Insulation—helps keep Frigidaire Air Conditioners whisper-quiet, prevents moisture from forming on cabinets.

FRIGIDAIRE AIR CONDITIONING

Over 400 Frigidaire commercial refrigeration and air conditioning products—most complete line in the industry.

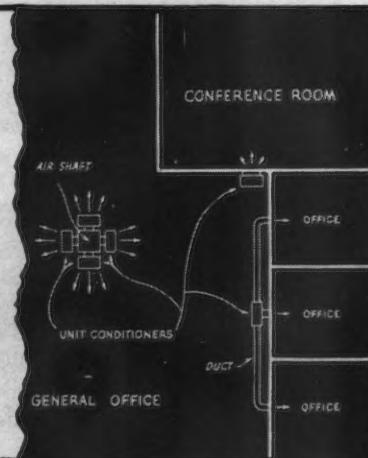


FOR INDIVIDUAL ROOMS in homes, offices, hotels and hospitals, Frigidaire Window Conditioners supply the same kind of air conditioning as big, theater-size systems. They're easily installed, powered by the famous Meter-Miser. Frigidaire also offers large capacity central systems.

Visit the Frigidaire Exhibit—Booths 6, 7, 8—National Home Builders Show, Stevens Hotel, Chicago, Feb. 19 to 23

HERE'S A FAST, LOW-COST WAY TO AIR CONDITION EXISTING BUILDINGS!

For air conditioning existing or new buildings, a Frigidaire Multiple-Unit Installation is fast and simple. Since it employs the compact, self-contained unit shown above, installation costs are low—for little duct work and no major building alterations are required. Operating costs are equally low. Individual Frigidaire units can be turned off or on as needed—can be serviced without affecting other space.



Want the facts about a
REALLY STABLE
SOLID-CORE DOOR?

MENGEL Solid-Core Flush Doors
Expand INTERNALLY—
But NOT EXTERNALLY!

Mengel Solid-Core Flush Doors represent a radically new Standard of Stability. Their unique construction does not undertake the impossible job of preventing expansion and contraction caused by changes in humidity — it controls these forces to an extent hitherto unknown.

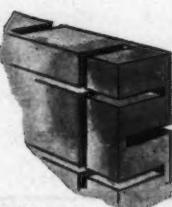
All Mengel solid hardwood core members are deeply slotted at frequent intervals both with and across the grain. These slots effectively absorb expansion and contraction. Thus the solid wood between the slots can expand and contract as the weather changes, without in any way affecting the stability of the door itself! Furthermore, Mengel's exclusive key-lock dovetails and waterproof hot-press phenolic bonding keep the entire assembly permanently tight. . . .

Get all the facts about Mengel Solid-Core Flush Doors—the really stable doors that co-operate with nature on the *inside*, ignore it on the *outside*! The coupon will bring you full information and specifications.



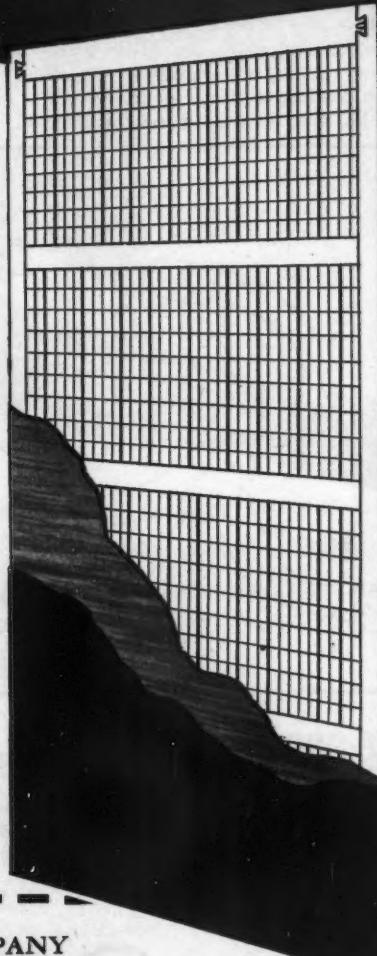
HIGH HUMIDITY

Wood expands under humidity, but expansion is absorbed by deep slots cut both with and across the grain. Note how the expansion of the solid wood has closed the slots.



LOW HUMIDITY

Dry atmosphere has shrunk the solid wood between the slots, thereby increasing the width of the slots, without changing the dimensions of the door itself.



THE MENGEI COMPANY

Plywood Division, Dept. AR-6, Louisville 1, Ky.

Gentlemen: Please send me complete information, including specifications, on Mengel Solid-Core Flush Doors.

Name _____

Firm _____

Street _____

City _____ State _____



"Quick-install-ability" saves initial cost

LTG FLEX-A-POWER busways are pre-fabricated housings which are easily coupled in any arrangement and in runs of any required length. Time for installing is much less than for wiring and conduit.

**Save money
these 3 ways**

when distributing power

"Plug-in-ability"
saves time relocating machines

Take-off plugs or trolley can be inserted anywhere (no drop-out section needed for trolley). You can add or relocate loads without rewiring expense and without long extensions.

"Take-apart-ability" saves material expense

Whenever a major relocation of outlets is required, the entire FLEX-A-POWER system can be dismantled, removed to another location and re-installed with practically 100% re-use of materials.

Sealed Power Corp.

saves with **Flex-a-Power**

LTG FLEX-A-POWER, one of six forms of FLEX-A-POWER for various services from main breakers to individual loads, is designed for light-duty lighting, small tools, appliances. Write for Bulletin TEC-3, THE TRUMBULL ELECTRIC MANUFACTURING COMPANY, Plainville, Conn.

TRUMBULL  **ELECTRIC**

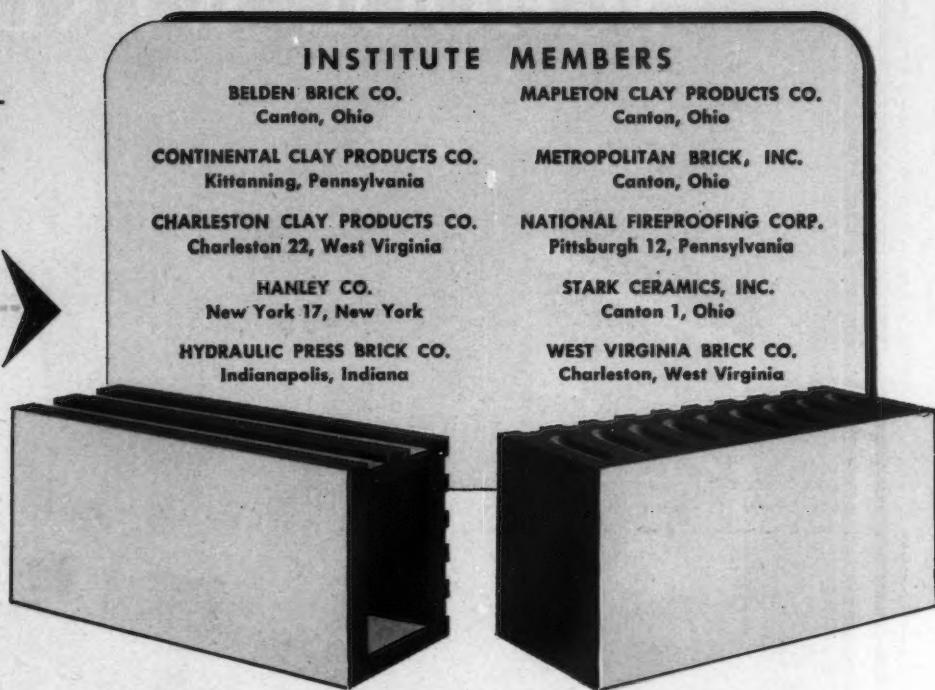


TRUMBULL'S TRAIN OF NEW PRODUCTS

10 good names

to know

*when you want
Facing Tile
at its best*



"Can I be sure the Structural Facing Tile I choose is a quality product?"

"Can I be sure it comes in dimensions most suitable for easy, economical use?"

There are other questions you could ask, but these two simple ones spring naturally to your mind when you're choosing Structural Clay Facing Tile—the "wall and finish in one."

They're more easily and satisfactorily answered, when you ask them of any one of the companies named above.

These companies are all members of the Facing Tile Institute. *And the aim of the Institute, and of the members who maintain it, is to furnish you with fine quality, easy-*

to-use Structural Facing Tile, glazed and unglazed.

The Institute, in fact, was formed for this purpose. Through the years, members have devoted continuous research toward improving quality, simplifying and standardizing shapes and sizes, and obtaining a full range of colors and finishes.

Each member of the Institute guarantees that any product manufactured by him will conform to the quality standards, tolerances and grading rules established and maintained by the Institute.

For more information about the "10 good names to know" and technical data about Facing Tile, write to the Institute, DeskAR-2, for new catalog 50-C.

FACING TILE INSTITUTE

1520 18th Street, N. W., Washington 6, D. C.

1818 HOPE'S 1950
SCHOOL WINDOWS



Crow Island School, Winnetka, Ill.

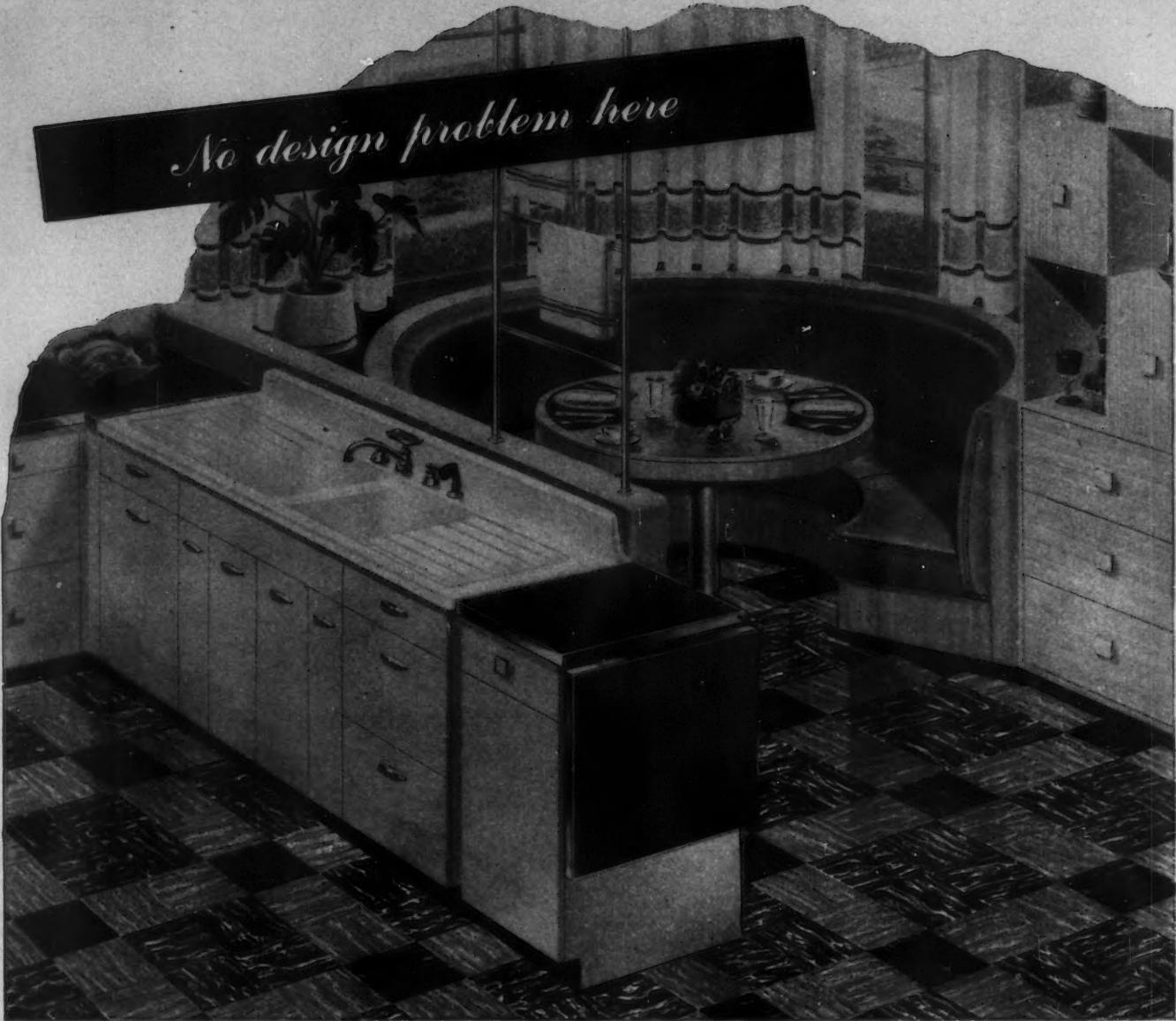
Eliel Saarinen . . . Eero Saarinen: Perkins, Wheeler & Will, Architects

- In the plan of this most interesting school a series of class rooms projects from a corridor. The practically complete window-wall on two sides of each room provides full daylight with control of sunlight and ventilation at all times. According to this plan, each class room has a full view of its own private grass and pavement court. The illustration is of the kindergarten wing at the end of the building.

This treatment is enhanced by the harmony between the classroom window-wall and the window at the back of the court. The versatility of Hope's Steel Windows was important to the success of this layout and their substantial construction will prove a lasting satisfaction for the life of the building.

HOPE'S WINDOWS, INC., Jamestown, N. Y.

THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS



Fixtures courtesy of American Radiator & Standard Sanitary Corporation, Pittsburgh, Pa.

Patterns: XZA 800-Dove Gray-401 SA Bright Red- ZWA-701 Plaid

...when you start with **FREMONT** rubber tile floors

Smart room interiors start with smart, colorful flooring. That's where Fremont's 17 beautiful fade-resistant colors offer a wide latitude of color choice to go with your room schemes. Fremont Rubber Tile is economy minded, too. It not only requires less care to stay beautiful but outlasts other types of flooring because the color goes clear through. If you have a room color problem, send it along and we'll be happy to offer a few floor suggestions.

fremont rubber Company

309 McPherson Highway, FREMONT, OHIO

MAKERS OF: Rubber Tile • Rubber Tile Adhesive • Vinyl Plastic
Cove Base • Counter Covering • Sponge Rubber
Rug Cushion • Rubber Rugs

Please send me without obligation a copy of your full-color brochure, "Fremont Opens the Door".

NAME _____

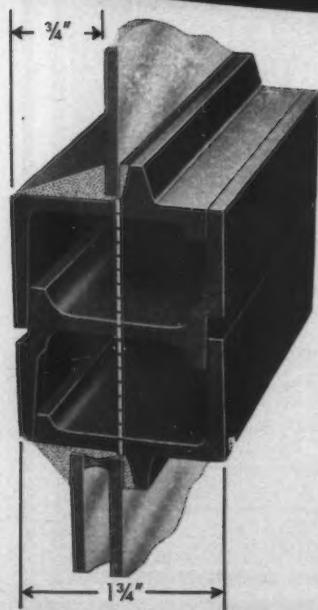
FIRM NAME _____

STREET ADDRESS _____

CITY _____ STATE _____

MESKER

steel windows...known for their
STRENGTH



HERE'S THE REASON WHY!

Mesker Intermediate Windows, like those used in the project illustrated here, are $1\frac{3}{4}$ " in depth . . . *the deepest section of any window made*. Thus they possess strength necessary to resist wind pressure and shock when used in large openings.

Note the narrow $\frac{3}{4}$ " Mesker putty ledge. It facilitates glazing, looks much neater and gets away from thick wrinkled putty. The glass in Mesker Intermediate Windows lies in the same plane—a refinement that assures finest appearance after glazing!

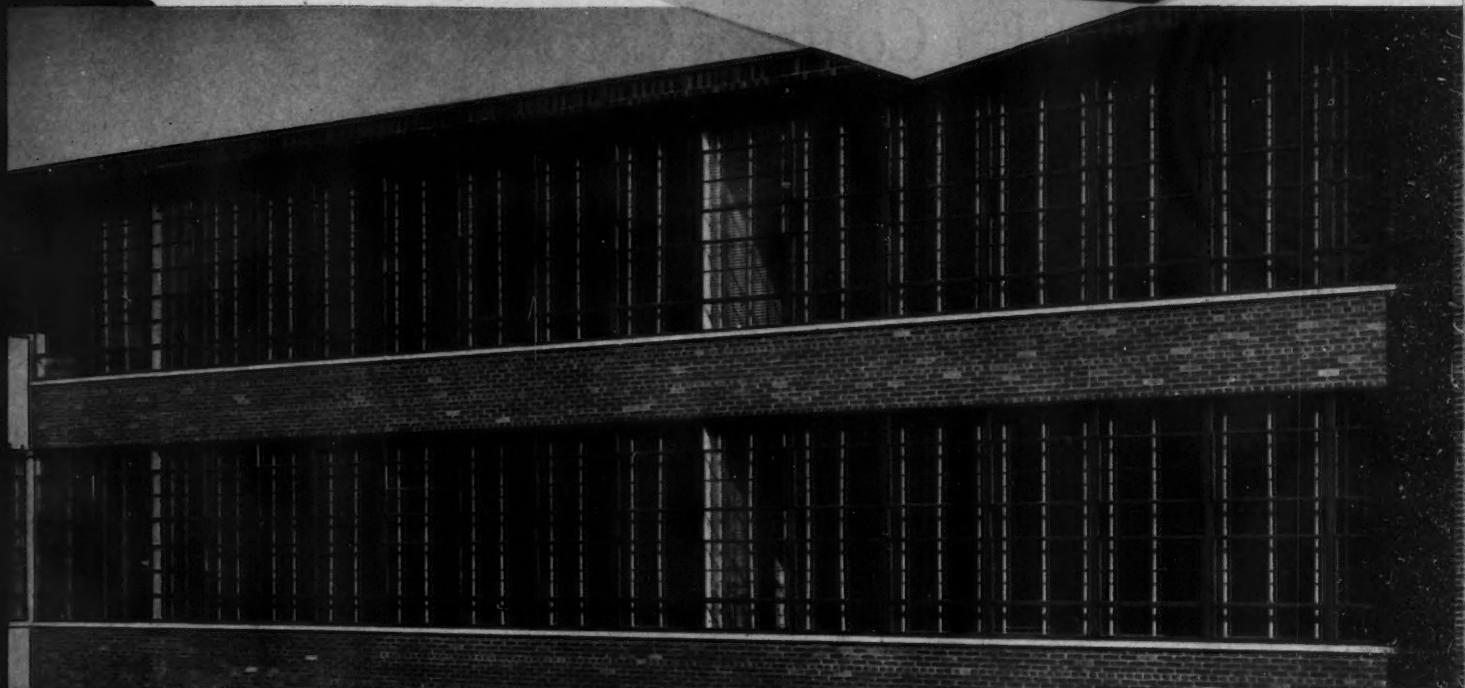
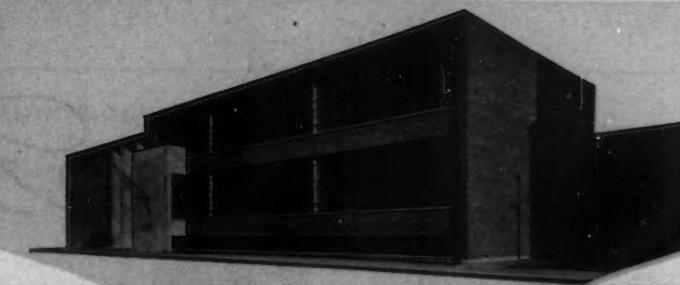
FOR SCHOOLS, FOR MONUMENTAL BUILDINGS, FOR COMMERCIAL BUILDINGS,

SAINT JOSEPH SCHOOL
CHICAGO, ILLINOIS

Architect:
Edo J. Belli
Chicago, Ill.

Contractor:
Herlihy Mid-Continent Co.
Chicago, Ill.

Mesker Sales Engineers:
Branch-Nicoloff Co.
Chicago, Ill.



Modern design, plus sound structure, with Mesker "window walls of glass"!

Here's an example of the design possibilities of the strongest windows made . . . Mesker Steel Windows! The two "window walls" above are 9' 5" high and almost 70' long . . . each having more than 600 square feet of daylight area. Without sacrificing structural strength in the windows, the architect has been able to achieve an excellent functional design. What's more, this is a west elevation in Chicago, where high winds are commonplace.

STEEL means strength and there's more steel in

Mesker windows! Their 1 3/4" sections are *the deepest sections made*. Mesker Steel Windows are especially useful in large openings, providing maximum light and ventilation coupled with exceptional structural strength. You get higher resistance to wind and shock, greater safety, lower maintenance. Important too, Mesker's extra strength means less possible damage in transit, during installation, through the years. Specify heavier, stronger Mesker STEEL Windows . . . known for their strength.

Available now and FREE to architects



Just off the press—new 1950 Catalog of Mesker "Heavy Duty" Windows! An organized reference book that covers every aspect of steel window designing, engineering and specifying. Order your copy today by mailing the coupon at right!

FOR HOSPITALS

Mesker

BROTHERS

4338 GERALDINE • ST. LOUIS 15, MO.

Gentlemen: I want to know more about the added advantages of Mesker Heavy Duty Steel Windows. Please send me (free) your 1950 Catalog.

Name _____

Address _____

City and State _____

Express your hotel's Hospitality with LEES Contract Carpets

The best way to say "Welcome" to any guest—is the silent way—with the luxury of lovely Lees Carpets! It's good sound economy too. Lees gives you the *most* for your carpeting dollar. Loomed from 100% imported wool dyed in stainless steel vats by Lees special dyeing formula—Lees Contract Carpets are specially woven to stand heavy traffic. Choose from many exquisite colors, patterns, textures, fabrics—traditional or modern. Also individual custom designs for special interiors. A Lees installation is always a creative piece of work—not "just another order".

Send for specific information from James Lees and Sons Company, Contract Carpet Division, Bridgeport, Pa.; or Showroom No. 1814, Merchandise Mart, Chicago, Ill.



JAMES LEES AND SONS COMPANY, BRIDGEPORT, PENNA. • MAKERS OF LEES CARPETS, COLUMBIA AND MINERVA HAND-KNITTING YARNS

American Blower—a time-honored name in air handling



In Cleveland, as in other cities, American Blower Air Handling Products service commerce, industry and public utilities. For air handling data in the Cleveland area, call American Blower—MAIN 6846. In other cities, consult your phone book.



All air handling equipment is not alike. There's a big difference in quality, design, quietness, operating costs and efficiency. American Blower products have stood the test of time—won the approval of architects, engineers and owners.

Air is free... use it profitably!

ARCHITECTS know the importance of air in process work and as a sure means of improving both working and selling conditions.

They know, too, that the finest air handling equipment money can buy is, in the long run, the best investment.

Building better air handling equipment for America's commerce, industry and public utilities has been American Blower's business since 1881.

Out of the thousands of applications of American Blower drying, ventilating, dust collecting, air conditioning and air handling equipment have come vital technical data and firsthand experience that may prove invaluable on many of your jobs.

If you would like to know how you can profitably apply American Blower equipment to any business

or building, phone the nearest American Blower Branch Office. And remember, if you need data covering any phase of air handling, write for free factual American Blower technical bulletins.

AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN
CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO

Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION

YOUR BEST BUY

AMERICAN BLOWER
AIR HANDLING EQUIPMENT

Serving home and industry

AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON

One of a series of papers prepared by leading authorities on air conditioning. The opinions and methods presented are those of the author and are not necessarily endorsed by Kinetic Chemicals, Inc. Reprints of this and other articles in the series may be had free of charge upon request.

AIR CONDITIONING THE MODERN HOSPITAL

By E. J. Benesch, Chief Air Conditioning Engineer, Syska & Hennessy, Inc. Consulting Engineers, New York, N. Y.



EDWARD J. BENESCH received his M.E. degree in 1926 from the Brooklyn Polytechnic Institute. He has since been continuously engaged in the fields of air conditioning, heating and ventilating. He has been associated with Syska & Hennessy, Inc., consulting engineers, since 1928 and now directs their

air conditioning, heating and ventilating work. Important projects on which he has worked include New York University, Bellevue Medical Center and the United Nations Permanent Headquarters in New York City. He is a member of the New York Association of Consulting Engineers, New York Society of Professional Engineers, and the Engineers Club.

Modern hospital practice demands that year-round automatically controlled air conditioning be provided for such sections as anesthesia rooms, the operating unit, delivery rooms, diagnostic x-ray unit and the allergy unit. This is dictated not only as an important aid in the treatment of disease and the promotion of the patients' welfare (since controlled temperature is often closely associated with rapid recovery), but for greater efficiency of the hospital's staff and personnel.

Although completely air conditioned hospitals may not have been common in the past, partly because of installation costs and operating expenses, today there is a steadily increasing recognition of the importance of comfortable environment for patients, doctors, interns, nurses, technicians, laboratory workers and others.

At present, engineering studies are being made which will undoubtedly result in bringing extensive air conditioning well within the construction and operating budgets of the average hospital.

OPERATING ROOMS

Operating units are practically always air conditioned. These, and anesthesia rooms, are first in importance. They must satisfy the following three conditions:

1. **Provide comfort** for the surgeons and medical staff.
2. **Provide an atmosphere** that is not conducive to electrostatic spark discharges so as to reduce the possibilities of anesthetic explosions.

3. Make available a supply of clean, filtered air that is free from dust, dirt and bacteria.

The location of the operating unit has a definite relation to the design of the refrigeration plant that is part of the air conditioning system. An operating unit so located that the heat loss will be at a minimum, will probably require air cooling during the winter months. Even though 100% outside air is circulated, it may be necessary to supply heated air to permit the necessary humidification, and then to cool this air so that it can absorb the internal heat gain of the room. Because of this possible winter operation, it is essential that the cooling equipment for the refrigeration condenser water be so installed that the compressor can operate during the winter.

It is important that a high relative humidity be maintained in the operating room to eliminate the possibility of electrostatic spark discharges. In fact, the National Fire Protection Association states:

"The temperatures and humidity maintained in operating rooms should be chosen on the basis of well-being of patient and personnel. High humidity will reduce the hazard of electrostatic spark discharge under certain conditions, but it is not sufficiently reliable for their complete elimination."

Since the relative humidity favorable to the comfort of both personnel and patient is from 55 to 60%, there will be an automatic reduction of this fire and explosion hazard.

However, because of the high relative humidity that is maintained in operating rooms, double glass windows are often necessary to prevent condensation and frosting on the glass during the winter, and also as a means of reducing drafts.

OTHER APPLICATIONS

Beside the operating unit, it is important that air conditioning be planned for the recovery room to which the patient is removed following the operation. During summer, cool air not only stimulates recuperation but it also increases comfort.

Delivery and labor rooms should receive the same treatment as operating rooms.

While year-round air conditioning is not important in the nursery for full-term infants, there must be careful automatic control of the relative humidity and temperature.

Because of changing medical technique, it is important that the medical staff be consulted.

DESIGN CONDITIONS

Although it has been a practice to use 80°F. as in-

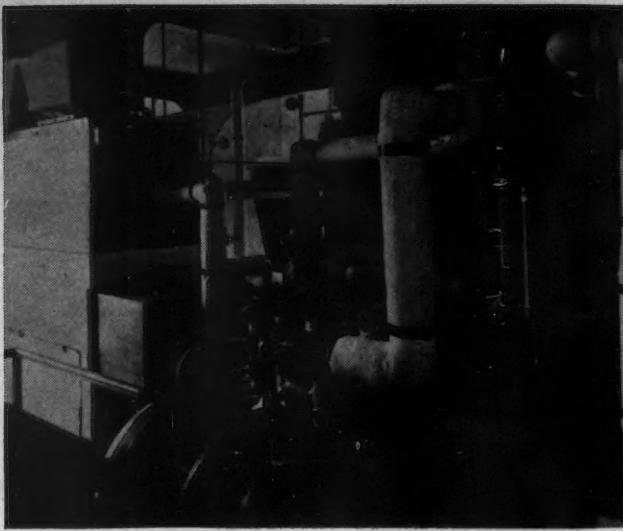


Photo courtesy of Carrier Corporation

side design conditions for summer, the operating staff of a large general hospital constructed in 1949 found that a maintained temperature of 68°F. provided the most satisfactory working conditions. It indicates that it is essential to have a plant capacity sufficient to produce air conditions at least 15°F. lower than current practice requires.

For overall hospital comfort in the tropics, one study indicates that the maximum inside temperature be 85°F. D.B. or 77.5° E.T. (effective temperature); the summer range of the inside temperature should be 75-83°F. D.B. or 70-77° E.T.; maximum relative humidity, 60%; the relative humidity may cycle between 25 and 50% if the dry bulb temperature is right; the dry bulb temperature may cycle through about 6°F. without being noticeable; for winter comfort, an acceptable condition is 70°F. D.B. and between 25 to 50% relative humidity.

TEMPORARY PROVISIONS

Some comfort cooling for patients has been provided in a few hospitals by supplying electric power outlets conveniently located for the installation of portable air-cooled, window-type conditioning units. While at best these are but a temporary expedient, they do provide some air conditioning, even if only for the private patient.

VENTILATION

Recirculation of air in an operating room air conditioning system is not permitted. The reason is obvious. Air recirculated would increase the concentration of possible explosive mixtures of anesthetics, raise the odor concentration, and build up the dust content of the supply air.

Use of an electronic or electrostatic air filter will reduce to a minimum the passage of dust particles on which bacteria ride. However, mechanical filters should be employed ahead of the electrostatic filter to guard, in the event of power failures, against unfiltered air entering the conditioned area.

The number of air changes has a definite bearing on the control of infections. It is essential to have a rapid air change, devoid of drafts, to reduce bacterial concentration and therefore the rate of infection. A minimum of 12 air changes per hour is recommended. The internal heat loads in an operating room are such that this number of air changes

per hour are attainable without unreasonable temperature differentials between supply and room air.

Supply air outlets should be located not less than 6 feet from the floor, not only to prevent the cooled air from being blown directly on the room occupants, but also to prevent the circulation of anesthetics through the entire room. Exhaust outlets should be provided both at the ceiling and near the floor.

For communicable disease wards, 100% fresh air is recommended for basically the source of infection is the patient. Rapid removal of the infected air, therefore, will reduce or help prevent the spread of infection.



FLOOR OR CEILING PANELS

Heating coils in the ceiling or floor, or in both floor and ceiling for some designs, have inherent advantages. Utilization of the heating panels for cooling surface will reduce the quantity of cooled air that must be introduced into the conditioned area by conventional means. Since the coils are already installed as part of the heating system, economical year-round operation may result when this coil surface is used as part of a residual cooling system.

With increased use of floor or ceiling coils for hospital heating, designers will do well to consider the advisability of using these coils as part of the means for supplying air conditioning during the summer.

* * *

Although at first, as has been stated, air conditioning was introduced in hospitals for maintaining comfortable conditions for the operating staff, it was later learned that controlled air conditions during operations resulted in better recovery by the patient. Now air conditioning is considered a necessary, and often an indispensable, adjunct in the proper therapy and treatment of a large number of diseases.

In recommending systems for the modern hospital, architects, consulting engineers, dealers and manufacturers unhesitatingly approve equipment designed to operate with "Freon" refrigerants. Refrigerating Engineering Application Data, Section No. 38, published by the A.S.R.E., recommends the use of "Freon" refrigerants for hospital air conditioning. "Freon" refrigerants are safe...nontoxic, nonflammable, non-corrosive and practically odorless. In addition, the purity and uniformity of "Freon" refrigerants aid in prolonging the efficient, economical performance of the installation. This is why it is to your client's advantage, to be certain that specified equipment is designed to utilize "Freon" safe refrigerants.

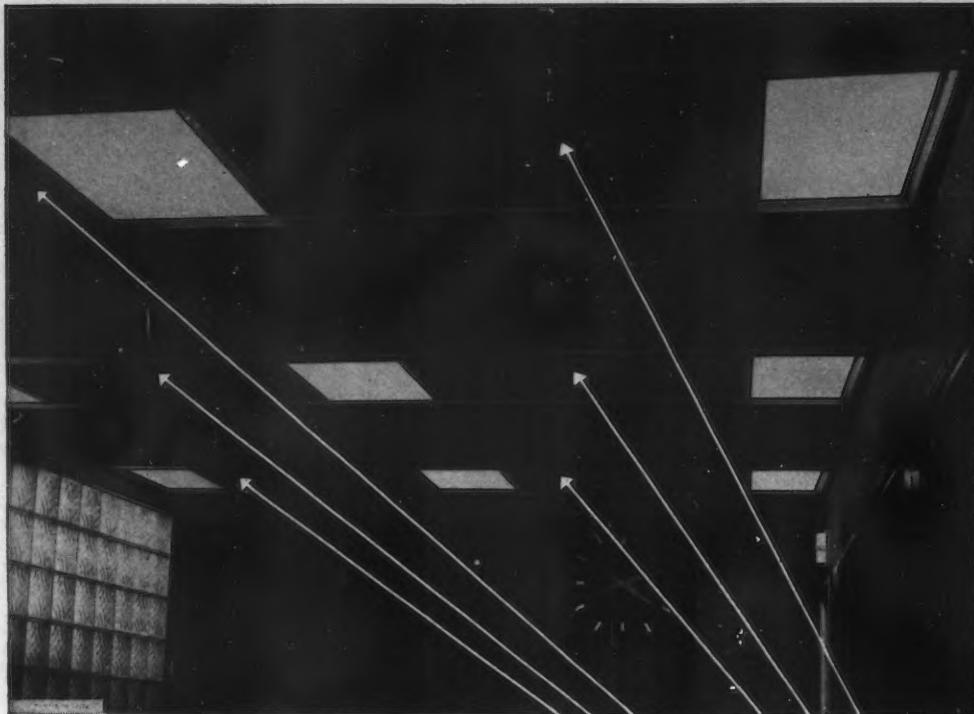
Kinetic Chemicals, Inc., Tenth and Market Streets, Wilmington 98, Delaware.



FREON **SAFE** **REFRIGERANTS**

"Freon" is Kinetic's registered trade mark for its fluorinated hydrocarbon refrigerants

For complaint-free low velocity air distribution



THE CARRIER CORPORATION OFFICES, New York City. Multi-Vent panels, barely discernible in beautiful, plaque-type coffered ceiling. Remarkably fine temperature regulation achieved by varying air volume in each zone with thermostat controlled modulating dampers.

Use
MULTI-VENT Ceiling Panels
T.M. Reg. U.S. Pat. Off.

Though the cost of supply and return air outlets is a very small percentage of the overall cost of a good air conditioning system, economizing in the selection of air distribution media is often the cause of complaints from clients on drafts, uneven temperatures, insufficient air, noise and dirty ceilings.

Multi-Vent is better able than any other diffuser to provide widespread uniform air distribution, without these common objectionable conditions because the basic draft, noise and dirt hazards, inherent in all other diffusers, are non-existent in the unique Multi-Vent principle of distributing air entirely by displacement rather than by high velocity injection.

In distribution by displacement there are no strong air streams to aim and no change in air flow pattern when air supply is varied. Regardless of room size, ceiling heights and relative positions of partitions, beams, etc., all problems of outlet location and air direction adjustments for throw and drop to avoid drafts are eliminated.

Multi-Vent, moreover, can handle greater amounts of air in proportion to room size than any other diffuser and still maintain a rate of air motion low enough to meet not only the most exacting comfort zone requirements but also to solve the high load and high ventilating problems in critical laboratory and industrial processing areas.

Multi-Vent has many other advantages such as savings in basic heating, cooling and air handling equipment in addition to the important installation, maintenance and decorating economies.

Write for detailed literature and the name of our sales engineer in your vicinity.

MULTI-VENT DIVISION • THE PYLE-NATIONAL COMPANY 1375 N. KOSTNER AVE., CHICAGO 51, ILL.

YOUR ENTIRE AIR CONDITIONING SYSTEM WILL BE JUDGED BY THE PERFORMANCE OF THE OUTLETS

IMPORTANT CONSIDERATIONS

for the Architect
about to recommend
**A SCHOOL TIME AND
PROGRAM SYSTEM**



FIRST, let's define the function:

A School Time and Program System has two primary functions: (1) to give the correct time in each classroom, and (2) to sound signals at pre-determined intervals. It must work automatically 5 days a week (often longer), in buildings jam-packed with kids and staffed by teachers and a principal who have neither the time nor the inclination to fuss with complicated gadgets.

SECOND, let's examine the features:

The installation consists of a Master Clock — Program Controller with Secondary Clocks and Buzzers in classrooms (bells elsewhere). In order to function smoothly the system should have these advantages:

1 Master Clock-Program Controller must be "on time" together at all times. In the STANDARD System they are one and the same mechanism, geared together. They can never get "out of step."

2 Master Clock and Secondary Clocks must also reveal exactly the same time.

In the STANDARD System there is only one synchronous motor — a heavy-duty, slow speed, precision-built unit located in the Master Clock. Secondary Clocks have no motors, electrical contacts, tubes or other complicated parts — require no cleaning, oiling, adjustment or renewal.

Other synchronous systems have one or two motors in each secondary clock and 1, 2 or 3 motors in the control unit where the failure of one disarranges the entire system.

3 The Master Clock-Program Controller should keep running during current interruptions, so that when current is resumed the signals will sound on time.

In STANDARD Systems this is accomplished without a catching-up-to-time period — and without the use of batteries which require frequent attention or renewal.

4 Each Secondary Clock should reset itself automatically after current failure.

In STANDARD Systems each clock has a 25-minute corrective range (slow or fast) and the reset feature functions in two seconds, silently. In certain other systems the Secondary Clocks must be reset in groups.

5 The Program Controller should cover all the programming needs of the entire school. This means complete service with periods down to the minute, and silence during nights, weekends, etc.

Furthermore, it must be so simple that anyone can set up a program in a few minutes, and change schedules at a moment's notice.

STANDARD employs a special paper tape, marked in minutes and hours, and punched by the Principal according to the schedule desired. Spare tapes, with different schedules, can be installed in a few seconds when necessary. The tapes will last 15 years or longer, and are free.



Other systems employing lugs, pins, cams, etc., are not only difficult to set up, but are subject to failure when pins drop out or break off.

6 For best performance and long-range economy, engineers agree that the wiring system for a clock and program service should be kept separate from light and power lines.

7 The system should be backed by years of dependable operation in schools under all conditions.

STANDARD can produce ample evidence of dependable performance in case histories running back to the turn of the century.

We shall be pleased to send you our new Bulletin No. 178, and to provide you with names of satisfied users to whom you may refer. Perhaps we can also assist you in preparing specifications for your time and program system. Please get in touch with us.

STANDARD ELECTRIC TIME COMPANY

STANDARD

25 Branch Offices

81 Logan Street Springfield, Massachusetts

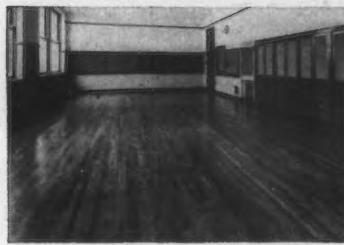


Northern Hard Maple Floor
of the shipping room, new
238,900-square-foot Montebello
(Los Angeles) plant of Helms
Bakeries. This shows part of the nearly
three acres of MFMA Northern Hard
Maple Floors in this "clean-lined"
bakery. Ellis Wing Taylor was
the architect-engineer, C. I. Peck,
the general contractor.

For durable
truly resilient,
low-maintenance,
floors in...

"Our three acres of **NORTHERN HARD MAPLE** means low maintenance, high morale"

—E. F. Sperling, Director of Engineering, Helms Bakeries



SCHOOLS—As, for instance, this classroom in MFMA Maple, Chicago Vocational School.



STORES—Such as Hallowell Seed Co., San Francisco; by Architect Raphael S. Soriano.



HOMES—As this one in Bangor, Me.; by Architects Eaton W. Tarbell & Associates.

When Helms Bakeries executives put their okay on the plans for this new plant, they knew from long experience, how well the vast areas of glistening-clean Northern Hard Maple Floors would serve them. They knew that neither nature nor man has yet produced another floor material so nearly perfect. Merchants, manufacturers, school authorities, home owners, by tens of thousands, know this, too. They esteem Northern Hard Maple for its lifetime endurance, its ever-modern beauty, its cheerful brightness, its permanent ease of cleaning and maintenance and the *resilience* that makes it so pleasant to stand on, walk on, work on, play on. **MFMA** is Northern Hard Maple Flooring at its splendid best—backed by rigid association grading supervision. It's plentiful again. Specify it where your judgment dictates, in fullest confidence of quality, economy and delivery-per-schedule. For catalog data, see Sweet's Arch. 13/g/6—Eng., 4/5/22. Write for latest listing of all the many **MFMA**-approved floor finishing products and processes.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Room 363 • 46 Washington Boulevard • OSHKOSH, WISCONSIN

FLOOR WITH **NORTHERN** HARD MAPLE
BEECH AND BIRCH



Central National Bank, Chicago, Illinois
 Architects: Graham, Anderson, Probst, White
 Fixture Manufacturer: Morris Kurtzon, Inc.
 Electrical Contractor: Hultgren Electric Co.
 Glass: CORNING ALBA-LITE

Your most adaptable fluorescent lighting medium . . .

Corning "ALBA-LITE"



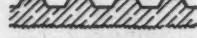
ALBA-LITE "55"



ALBA-LITE "66"



ALBA-LITE "77"



ALBA-LITE "88"

This photograph gives you an idea of how well CORNING ALBA-LITE diffuses fluorescent light . . . especially desirable for office work. The qualities of diffusion and brightness control are contained within a thin opal glass panel. This makes ALBA-LITE adaptable to almost any type of installation whether recessed or exposed.

There is no limit to the design flexibility that can be achieved with ALBA-LITE. It

is obtainable flat or bent in four standard patterns as shown.

Widths vary from 2" to 24", lengths from 8" to 100". It may be used in fixtures, or glass ceilings, as required.

Bulletin LS-17 describes this versatile lighting glassware in detail and illustrates many ways it is being used. This new 30 page bulletin is yours for the asking. Use coupon below.



CORNING GLASS WORKS

CORNING, NEW YORK

Corning means research in Glass

FOR EFFICIENT, ATTRACTIVE LIGHTING . . .

CORNING ALBA-LITE for diffusion of fluorescent light . . . CORNING FOTA-LITE for high level illumination . . . CORNING brand LENS PANELS and PYREX brand LENSITES for prismatic light control

CORNING GLASS WORKS
 Dept. AR-2, Corning, N. Y.

Please send me a free copy of your bulletin LS-17 describing CORNING ALBA-LITE.

Name _____

Firm _____

Address _____

City _____ Zone _____ State _____



It happened at night . . .

In a hospital almost anything can happen at night . . . at any time. For births, accidents, emergency operations may demand attention at any hour. Thus dependable lighting in hospitals is extremely vital. And this means more than number, brilliance and location of lights. Provision should be made to offset the danger of failure of normal current supply.

Lighting failures are of frequent occurrence. For storms, fires, floods,

collisions or other accidents beyond the control of ever-vigilant utility companies give little or no warning and are a serious menace to electric power lines.

You can safeguard the buildings you design against such power failure. Exide Emergency Lighting provides safe, sure, modern protection to hospitals, schools, theaters, stores and other buildings. *Instantly* and *automatically* it takes over the light-

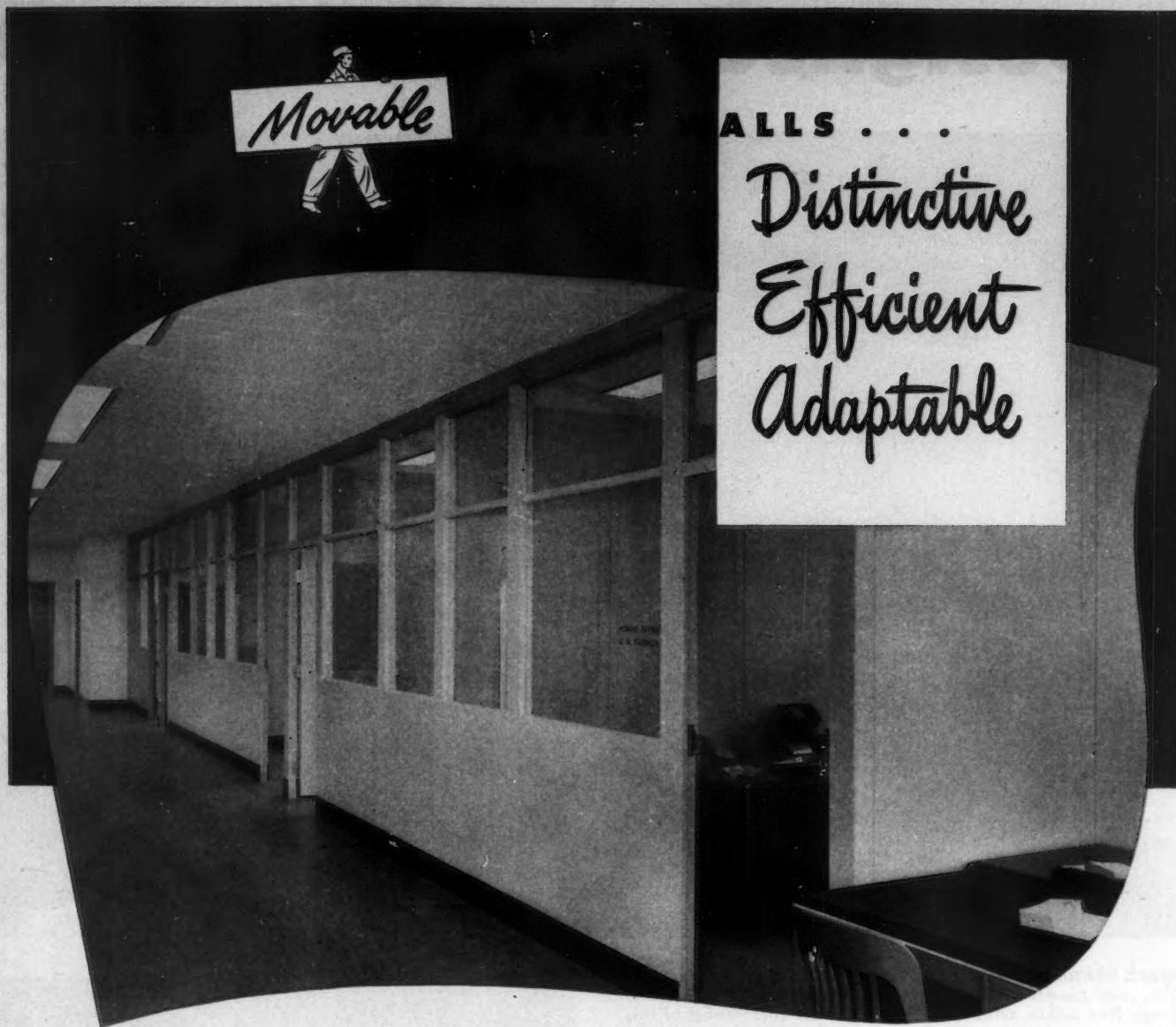
ing load when other sources fail. It can be supplied in units or systems to meet any requirement.

THE ELECTRIC STORAGE BATTERY CO.
Philadelphia 32
Exide Batteries of Canada, Limited, Toronto

Exide
EMERGENCY
LIGHTING

"Exide" Reg. Trade-mark U.S. Pat. Off.

1888 . . . DEPENDABLE BATTERIES FOR 62 YEARS . . . 1950



General Office
Motorists Mutual Insurance Company
Columbus, Ohio



You'll find this new 48-page Mills Catalog bound into Sweet's File, Architectural, for 1950—or we'll be glad to send you an easy-to-handle copy for your individual use. Just ask for Catalog No. 50.

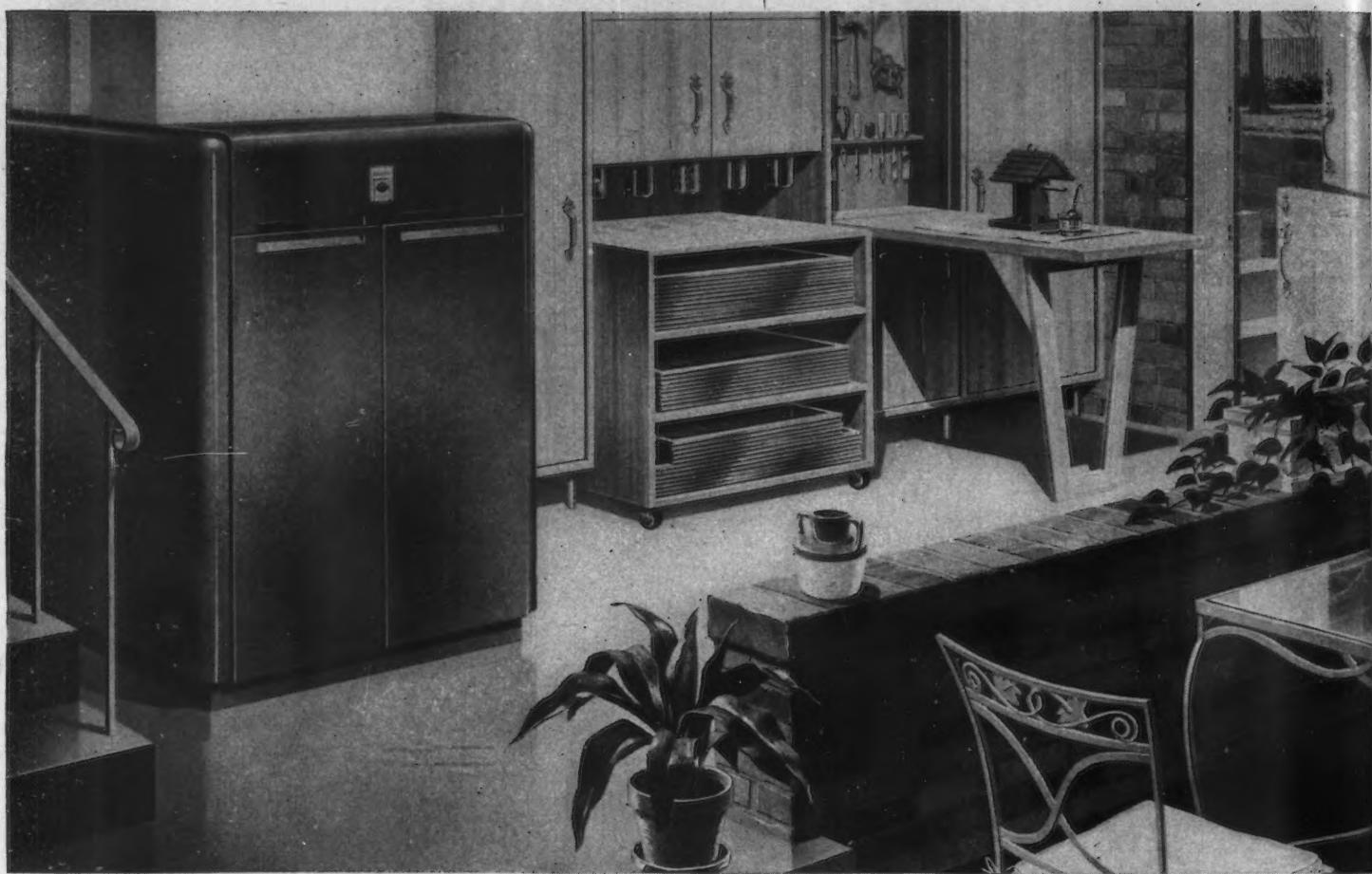
MILLS MOVABLE METAL WALLS are distinguished by the simple refinement of their architectural design, the permanent solidity of their construction, the pleasing soft colors of their baked-on enamel finishes that keep their fresh new look with no other maintenance than ordinary washing.

Insulated and soundproofed, with surfaces specially treated to eliminate all harsh light reflection, they create beautifully efficient business interiors.

Yet when progress requires changes in office layout, Mills Walls can be moved—quickly, easily, at very low cost—and completely re-used to fit any new space arrangement. An entire change can generally be accomplished overnight without interruption of business routine.

●
THE MILLS COMPANY
961 WAYSIDE ROAD CLEVELAND 10, OHIO

Designed and Engineered for



HERE'S HEATING COMFORT . . . AND WORKING COMFORT, TOO. The trim gas-fired Mohawk Winter Air Conditioner with its Forge Red jacket, actually complements the furnishings of this basement workroom. Engineered to give long, trouble-free service, the Mohawk operates quietly, efficiently, as smooth as clockwork. And that's true of all American-Standard Heating Equipment. The complete line covers every type of fuel—and includes boilers, radiators, convectors and baseboard radiant panels, plus warm air furnaces and winter air conditioners.

THE MOST RIGID HOSPITAL REQUIREMENTS ARE MET by American-Standard Plumbing Fixtures. They are built for greatest convenience in use, durability and easy cleaning. And they are designed to fit the specialized hospital needs for treatment rooms, operating rooms and laboratories as well as patients' rooms and all general purposes. The genuine vitreous china Scrub-up Sinks, illustrated, are in the Sid Peterson Memorial Hospital, Kerrville, Texas. Architect: Addis E. Noonan, San Antonio, Texas.



Look for this *Mark of Merit*

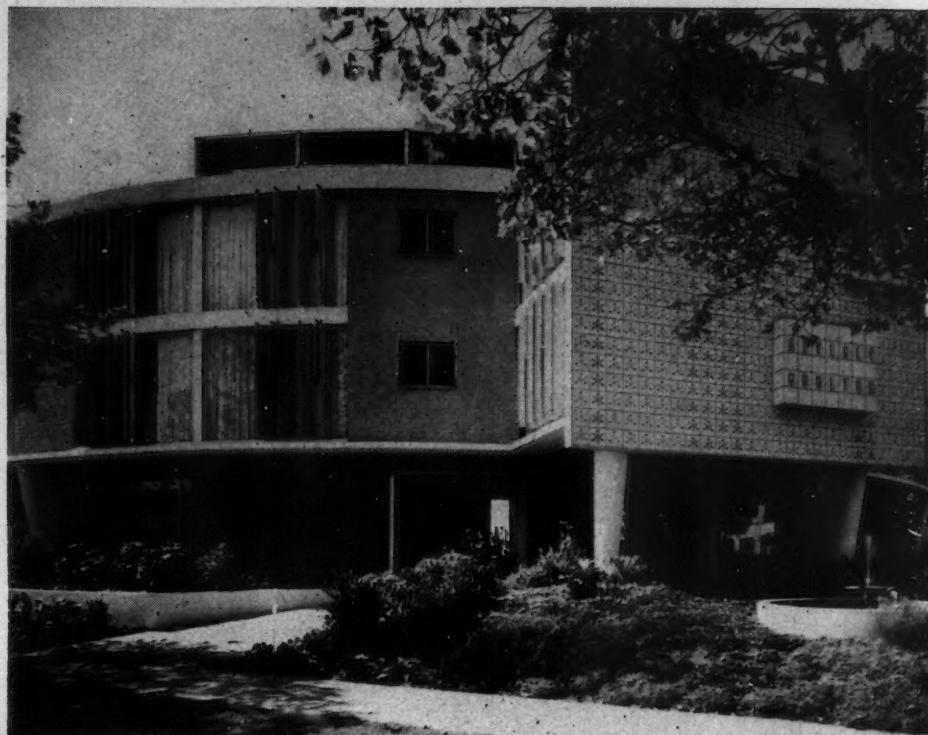


d for every kind of job

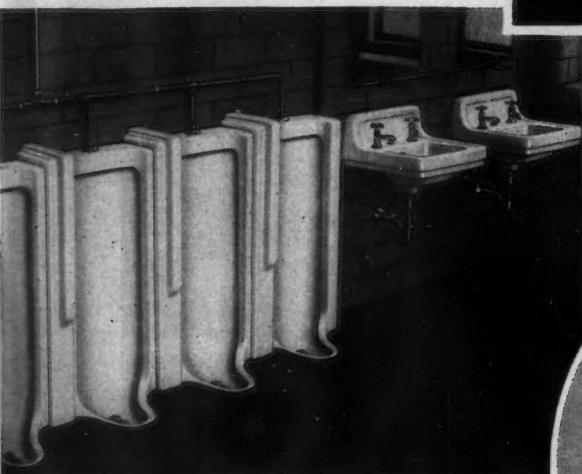
Look over the new construction jobs that are going up today and you'll find more and more of them with heating equipment and plumbing fixtures by American-Standard. This isn't surprising when you remember that the American-Standard line is the most complete in the industry, and includes products for even the most specialized needs.

This variety of products offers the widest flexibility in designing and styling for structures of almost every size and type . . . whether for houses, hotels, schools, hospitals, or large industrial buildings.

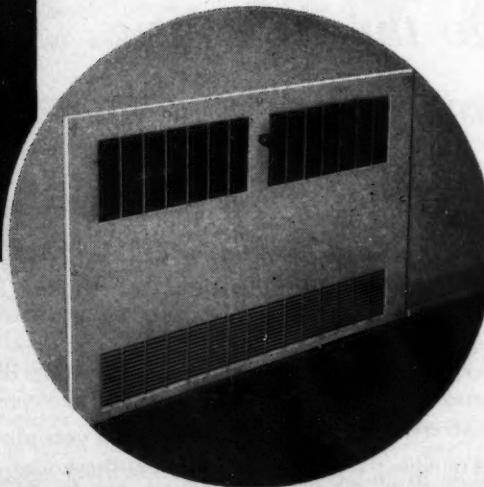
In design and in performance, you can rely on American-Standard Heating Equipment and Plumbing Fixtures to do the job right. Your Heating and Plumbing Contractor will be glad to give you up-to-date information on the complete line. **American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.**



DISTINCTIVE BATHROOMS FOR A DISTINCTIVE HOTEL! The bathrooms of the ultra-modern Beverly-Carlton Hotel in Beverly Hills, California, are equipped with American-Standard Plumbing Fixtures. These quality fixtures, which add so much to the convenience and comfort of hotel guests, fit right in with any type of construction . . . they'll add much to the appearance of any building you design. Architect: Sam Reisbord, Los Angeles, California.



THE RUGGED SERVICE CONDITIONS encountered in schools provide a real test for plumbing fixtures. American-Standard products are popular with school authorities because they will take a lot of rough treatment . . . they're hard to mar, easy to keep clean. These Chinal Urinals and Lucerne Lavatories are located in the St. Athanasius School, Evanston, Illinois. Architects: Meyer & Cook, Chicago, Illinois.



SPACE SAVING IS AN IMPORTANT CONSIDERATION in tourist courts. And this Arco Multifin Convector, installed in the Bucking Horse Tourist Court in Rawlins, Wyoming, not only saves space but, with the American Enclosure, makes an attractive installation. It provides efficient heating throughout the room. Architects: Kellogg and Kellogg, Cheyenne, Wyoming.

AMERICAN-Standard

First in heating . . . first in plumbing

Serving home and industry

AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON



In the Grand Suite of Philadelphia's Benjamin Franklin Hotel—a luxurious installation of Bigelow's beautiful carved-effect Sovereign Carpet.

*"24 years ago the carpeting
was Bigelow... naturally we
selected it again!"*

Says Joseph E. Mears, General Manager of the
Benjamin Franklin Hotel, Philadelphia



"Here at the Benjamin Franklin, we honor the great American diplomat and inventor," says Mr. Mears.

"Benjamin Franklin was also a great advocate of wise spending. It is apropos that here only long-lasting materials of proved quality be used."

"Twenty-four years ago when this hotel was opened, the carpeting was Bigelow. Again, we have selected beautiful,

long-wearing Bigelow Carpets for our dining room, bedrooms, and corridors."

Are you planning new hotel carpet installations? Let Bigelow's Carpet Counsel help you choose just the right carpets to give you the utmost in beauty, harmony, and service.

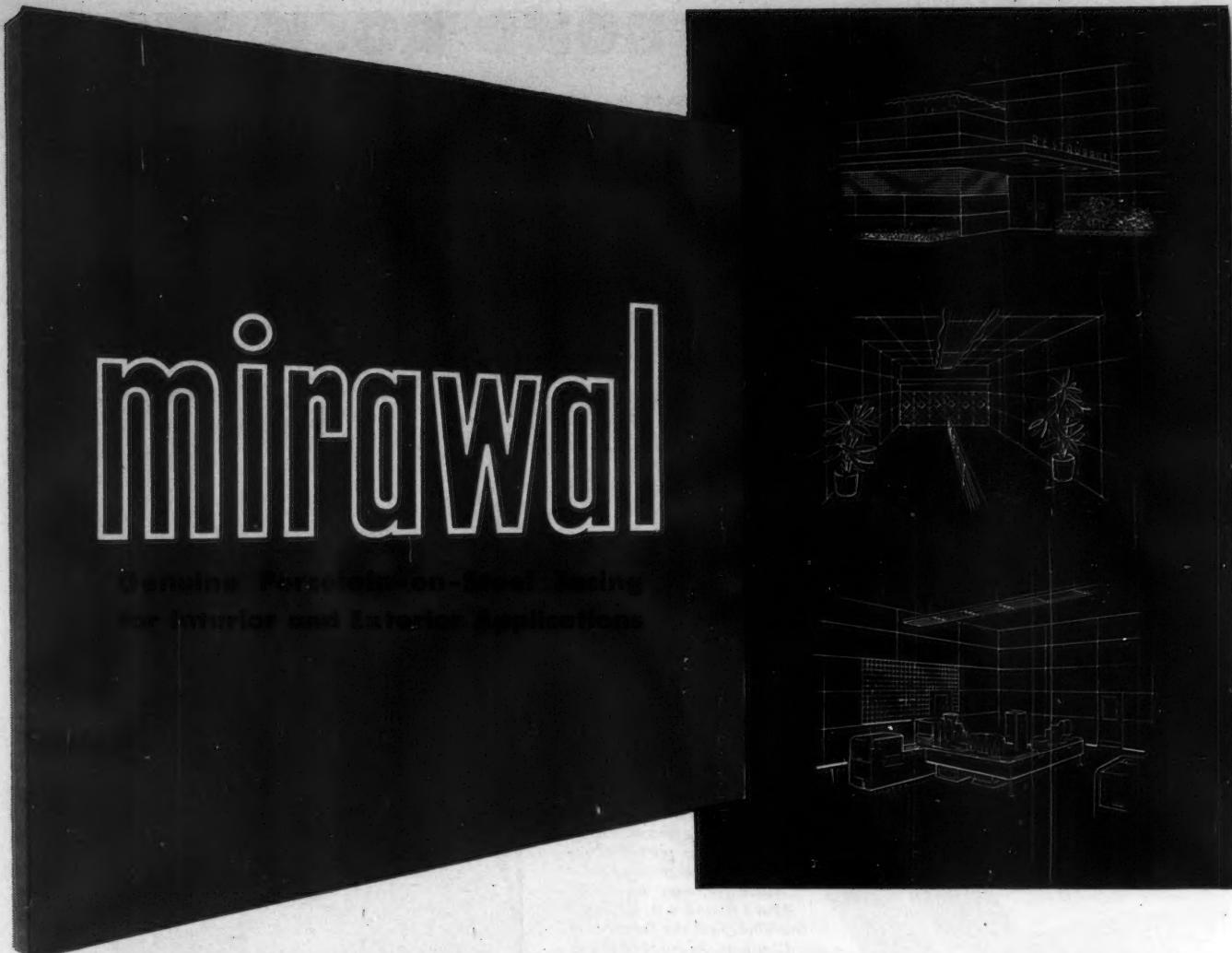
One of the 26 Carpet Counsel offices is near you ready to work with you from initial plans through final installation. Telephone today.



Joseph E. Mears, vice-president and general manager of the Benjamin Franklin Hotel, checks rug maintenance costs with his executive housekeeper, Elizabeth Finn, who has just completed 24 years of service.

BIGELOW Rugs and Carpets

Beauty you can see... quality you can trust... since 1825



A NEW NAME ... A NEW PRODUCT

With major advantages in a wide variety of applications !

WHAT IS MIRAWAL?

Mirawal is a surface finishing material with a genuine porcelain-on-steel facing, designed for both interior and exterior use. The desirable qualities of glass are combined with the structural strength of steel to produce facings that are easy and economical to keep clean . . . facings that are durable, highly scratch resistant, with a colorful, fireproof, lifetime finish.

The vitreous porcelain surface of Mirawal is fused to specially prepared steel at temperatures up to 1600° F. The porcelain-on-steel sheet is then laminated to $\frac{1}{8}$ " Masonite Hardboard backing—producing a sturdy material with an inseparable facing.

Exterior Mirawal is manufactured to the same careful specifications as the interior facing material. It is

then reinforced and waterproofed with rigid sheets of 28-gauge galvannealed steel inseparably laminated to the back of the Masonite core.

CHARACTERISTICS OF MIRAWAL:

Mirawal will not fade, depreciate, peel or discolor. The surface is impervious to moisture, odors, ordinary household acids, oils, grease and solvents. There are no cleaning problems whatsoever connected with Mirawal. Stains or chemicals that might splash onto the surface are easily removed with a damp cloth, with no defacing stains remaining on the surface.

Wherever permanent, eye-catching beauty is desired, with low-cost maintenance, Mirawal offers many advantages at a reasonable cost. If you would like a sample of Interior and/or Exterior Mirawal with folder giving complete specifications, write us. We will be glad to send them to you.

*Mirawal is Ideal for Exterior and Interior Application of Super Markets • Restaurants
Theaters • Dairies • Meat Markets • Candy Shops • Bakeries • Hospitals • Food
Processing Plants • Schools • Railway and Bus Stations.*



BALTIMORE PORCELAIN STEEL CORPORATION
P. O. BOX 928 BALTIMORE 3, MD.

FIREPROOF GOLD BOND ROCK WOOL

NOW AVAILABLE

IN 8 FT. SEALED BLANKETS!



• Gold Bond Sealed Blankets have a double strength stapling or nailing flange. Vapor barrier is part of Blanket. Breather cover on 3 sides for easy handling. Also 2 ft. and 4 ft. Enclosed Batts have all the features of the Blankets. Blankets come in 3 thicknesses: Jumbo, Standard and Mat; Batts in Full-thick and Semi-thick. For full details, see Sweet's.



THESE days with the cost of fuel sky-high, you do your clients a bigger favor than ever when you specify top-quality insulation. You can now give them the best there is—fireproof, Full-thick Gold Bond Rock Wool—in new, easy-to-apply 8 ft. Sealed Blankets. The additional cost over thin, inadequate insulation will be more than paid back in year-round extra comfort and annual fuel savings. These savings often amount to a full 40% and continue for the life of the house!

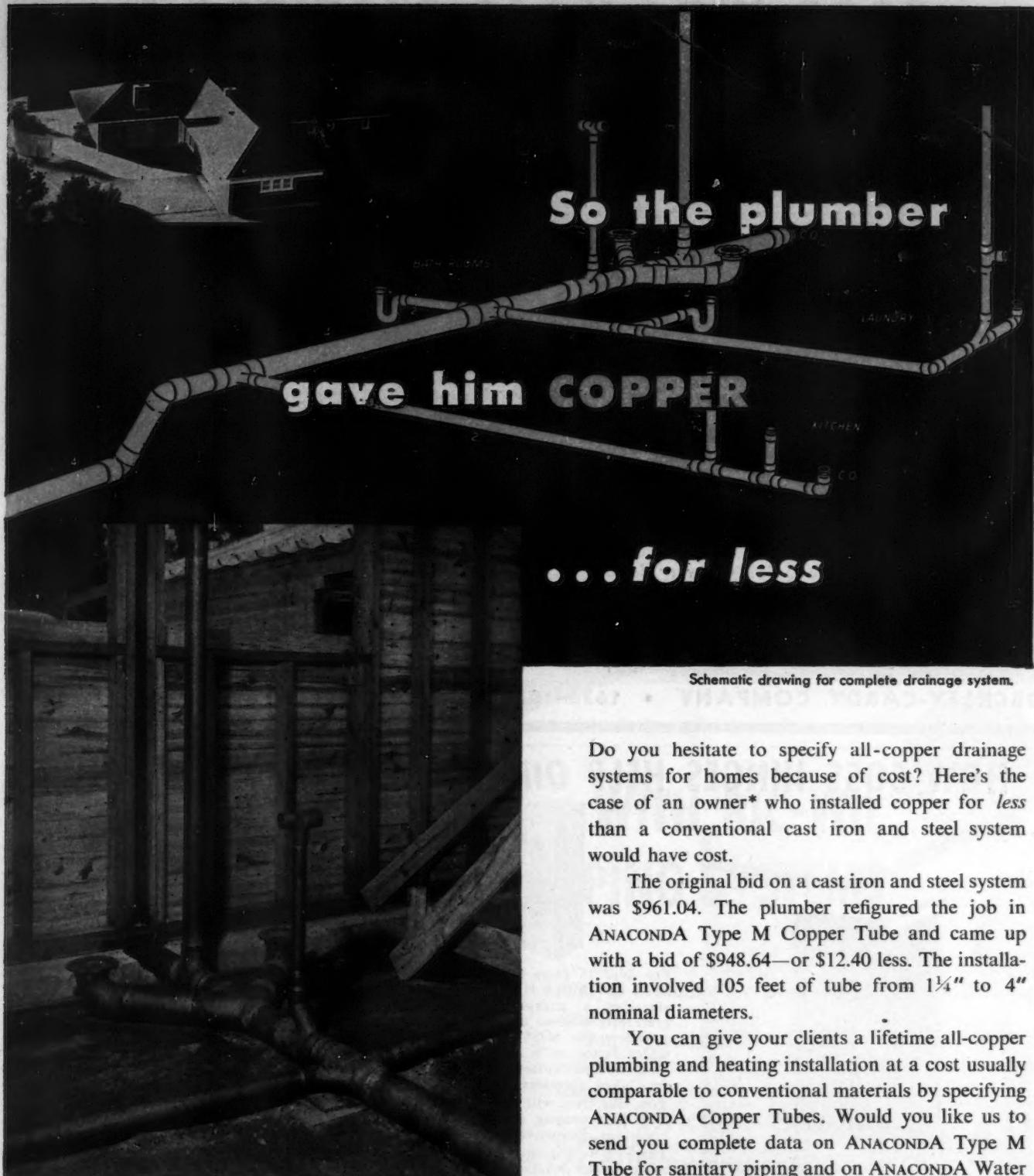
Gold Bond manufactures a complete line of Rock Wool Insulation products to meet all your insulation requirements. Every one is completely fireproof—as fireproof as the rock from which it's made. Not just "fire-resistant" or "fire-retarding." For National Gypsum's new folder describing the full line of Insulation products, including data on thermal properties and specimen specifications, write Div. Y, Dept. AR-2.

Fireproof Wallboards, decorative Insulation Boards, Lath, Plaster, Lime, Sheathing, Wall Paint, Rock Wool Insulation, Metal Lath and sound control products.

NATIONAL GYPSUM COMPANY
BUFFALO 2, N. Y.

You'll build or
remodel better with

Gold Bond



Schematic drawing for complete drainage system.

Do you hesitate to specify all-copper drainage systems for homes because of cost? Here's the case of an owner* who installed copper for *less* than a conventional cast iron and steel system would have cost.

The original bid on a cast iron and steel system was \$961.04. The plumber refigured the job in ANACONDA Type M Copper Tube and came up with a bid of \$948.64—or \$12.40 less. The installation involved 105 feet of tube from $1\frac{1}{4}$ " to 4" nominal diameters.

You can give your clients a lifetime all-copper plumbing and heating installation at a cost usually comparable to conventional materials by specifying ANACONDA Copper Tubes. Would you like us to send you complete data on ANACONDA Type M Tube for sanitary piping and on ANACONDA Water Tube for plumbing and heating piping? Just write to The American Brass Company, Waterbury 20, Connecticut. In Canada: Anaconda American Brass Ltd., New Toronto, Ontario.

5018A

*An actual case. Owner's name on request.

For better plumbing...use

ANACONDA
COPPER TUBES



Modern Litegreen Chalkboard meets every demand for eye comfort—readability—attractiveness. Offered in three constructions, with identical, clean-erasing writing surface, for your selection.

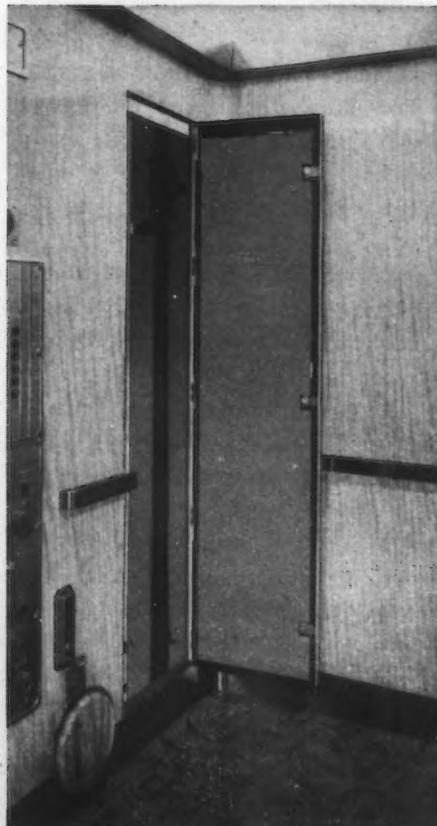
See Sweet's 1950 Catalog — 23d/1 — for details and specifications

BECKLEY-CARDY COMPANY • 1630-1634 INDIANA AVE., CHICAGO 16, ILL.

BEFORE YOU PLAN ANOTHER SCHOOL

Send today for testing samples of Slatbestos — Videoplate or Slatoplate — in black or Litegreen. Cork bulletin boards too.

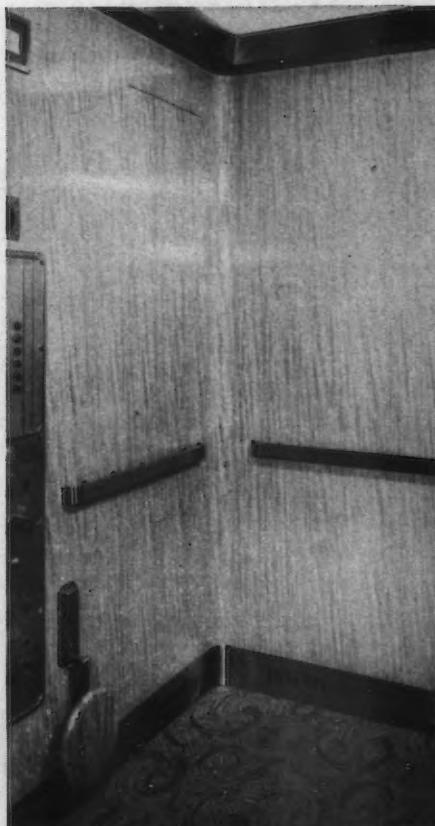
HOW SOSS HINGES HELP Otis STREAMLINE AN ELEVATOR



For over 16 years Otis has been using SOSS INVISIBLE HINGES to give their elevators a streamlined, harmonious, gracefully modern appearance. Otis also considers the SOSS HINGE a definite safety factor as it has no protruding hinge butt to bruise people, tear clothes, etc., when elevators are crowded. You, like Otis, will find SOSS HINGES ideal for creating unique, streamlined, luxurious, distinctively modern interiors. There's a weight-rated SOSS HINGE, for every type of installation. They're perfect in every respect for secret panels, cupboards, and doors of all kinds. Your clients, too, will like this "hinge that hides itself." Write for FREE CATALOGUE that gives complete details, blueprint templates, and the many uses of this modern hinge to—

**SOSS MANUFACTURING COMPANY
21769 HOOVER ROAD DETROIT 13, MICHIGAN**

SOSS
INVISIBLE
HINGES



HOSPITALS PLAN LOW COST PERFORMANCE and DEPENDABILITY



WITH RIC-WIL

INSULATED PIPING SYSTEMS



When hospital heating or air conditioning systems are planned, architects, engineers, and heating and ventilating contractors recognize the advantages of central heating and Ric-Wil Prefabricated Insulated Piping Systems.

They are custom engineered and prefabricated for fast installation. The high thermal efficiency and long trouble-free life of Ric-Wil Systems make them the practical answer for exposed or underground insulated piping.

In addition, Ric-Wil engineering service, backed

by forty years' experience in the insulated piping field, is available for planning and field installation assistance.

Our representative will be glad to give you detailed information on existing installations and their advantages.

- HIGH EFFICIENCY INSULATION
- PREFABRICATED AND SEALED SECTIONS
- FLEXIBILITY IN INSTALLATION
- PREFABRICATED ACCESSORY UNITS
- DEPENDABLE LONG LIFE

For full technical information on Ric-Wil Insulated Piping Systems, call or write the Ric-Wil office nearest you or Dept. 9-B in Cleveland, Ohio.

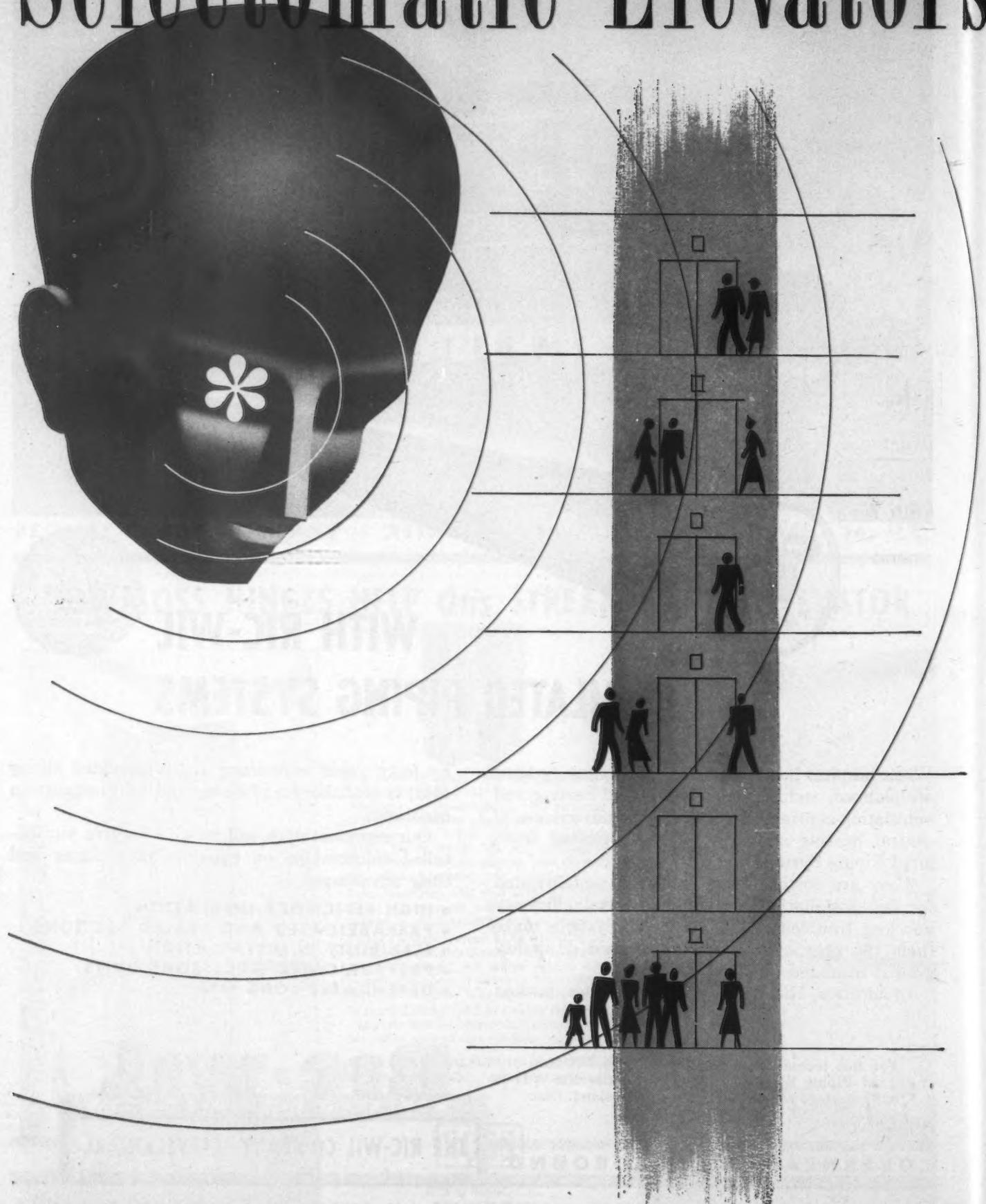
OVERHEAD • UNDERGROUND

RIC-WIL
INSULATED PIPING SYSTEMS

THE RIC-WIL COMPANY • CLEVELAND, O.

FOR FORTY YEARS THE GREATEST NAME IN INSULATED PIPING SYSTEMS

Selectomatic Elevators



HAVE AN "EYE" FOR BALANCING ELEVATOR SERVICE WITH DEMAND

Green, red, red and green . . . up, down and in between. Heavy, light, light and heavy . . . calls scarce or by the bevy. Selectomatic's "eye" reflects any traffic pattern the people make. Then, instantly and automatically, its electrical brain balances the movement of the cars with the size of the demand.

Selectomatic has charted a complete new era for elevators. No longer does the elevator service in your building have to depend on a "starter's" blind guess at when to dispatch which cars where.

With Westinghouse Selectomatic on the watch, our good friend, the starter, can relax. Spend all his time looking after his most important job . . . directing traffic.

Selectomatic is the only elevator system that automatically regulates an entire elevator bank and matches the service to the demand—under any traffic conditions.

Selectomatic, an exclusive Westinghouse development, completely supersedes the previous accepted elevator standard—signal control.

Send for Book B-3597 and get the complete story of Westinghouse Selectomatic—science's greatest achievement in elevator transportation. Elevator Division, Dept. D-1, Westinghouse Electric Corporation, Jersey City, N. J.

J-98567

YOU CAN BE SURE...IF IT'S **Westinghouse**



Housing Project in New York Built With Open-Web Joists—This is the Abraham Lincoln Housing Project, a new low-rent, 1286-apartment development in Harlem. Built for the New York City Housing Authority, it consists of six 6-story and eight 14-story buildings. In the 6-story structures Bethlehem Open-Web Joists are used in combination with concrete floors and plaster ceilings. Steel joists were chosen because they reduced the weight of the buildings and thus effected a definite saving in the pile foundations. In addition, floors constructed with Bethlehem Open-Web Joists offer many other important advantages. They are non-combustible and shrink-proof. They retard the passage of sound, and are immune to attack by rodents. They permit maximum area between firewalls, and make exterior fire escapes unnecessary. They also allow the architect complete freedom in locating exits and vented interior baths. See our catalog in Sweet's for complete information about Bethlehem Open-Web Joists. *Architects:* Skidmore, Owings and Merrill, New York; Vertner W. Tandy, New York; Edwin M. Forbes, New York. *Structural Engineer:* William A. Hoffberg, New York. *Contractor:* H.R.H. Construction Corporation, New York.



Beautiful, permanent Suntile

Chosen for Fashionable

Fifth Avenue Apartment Hotel



1 East 66th Street, New York City
Overlooking Central Park
Architect, Candela & Resnick; Builder,
Sam Minskoff & Sons; Tile Contractor,
A. Tazzini Tile Works, Inc.—all of New
York, N. Y.

Fifth Avenue, New York, long has been one of America's finest residential areas.

Typical of these residences is this new, modern apartment-hotel where only top quality materials have gone into both exterior and interior construction. In bathrooms and showers—the choice is *real clay* Suntile.

Suntile is an ideal selection for any building interior where there can be absolutely no compromise with quality. Suntile is manufactured under strict supervision to the highest standards in the clay tile industry.

When you select Suntile, you can be sure your tile will represent the best in form and finish—give greatest resistance to marring, chipping and cracking—reduce maintenance, repair and decorating costs to the very minimum.

Suntile will keep its good looks for the life of your building. It's Color-Balanced in beautiful, fadeless colors that give you wide selection of harmonious blends. And it's so easy to keep Suntile clean and fresh looking with merely a damp cloth.

Most important, Suntile is installed only by Authorized Dealers who guarantee their installations.

Color Balanced

Suntile

Bright with color. Right for life.

WAREHOUSES

The Cambridge Tile Mfg. Co.
470 Alabama St.
San Francisco 10, California

The Cambridge Tile Mfg. Co.
941 N. Citrus Ave.
Los Angeles 38, California

SUNTILE OFFERS YOU BOTH: BETTER TILE--BETTER INSTALLATION

The Thermostat That Does Everything

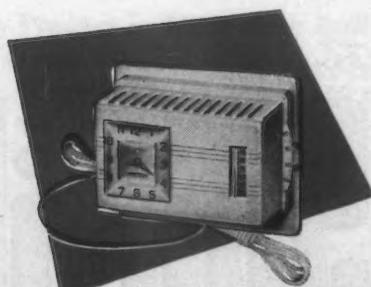


THE **NEW** FUEL SAVING
COMFORT *Chronotherm*

EVERYTHING to bring owners of your homes sensitive, accurate home heating comfort—that's what Chronotherm does, automatically and economically. Right around the clock, seven days a week, this new Honeywell electric clock thermostat helps heating plants perform at their best—helps make every home owner a bigger booster for his heating plant, and for you.

Automatically, Chronotherm saves fuel every night by lowering room temperatures and returning them in the morning to whatever level is wanted for daytime comfort. By this feature alone, Chronotherm pays for itself.

So, here's reason enough to include Chronotherm in the specifications for every home you design. It's a nationally advertised product your clients will be quick to recognize and appreciate. Use Chronotherm as a mark of quality as well as convenience. Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Leaside, Toronto 17, Ontario.



The new Plug-In Chronotherm is designed to replace all manual thermostats. All the advantages of the regular Chronotherm. Anyone can install it in a few minutes.

77 BRANCHES FROM COAST TO COAST WITH SUBSIDIARY COMPANIES IN: TORONTO • LONDON • STOCKHOLM • AMSTERDAM • BRUSSELS • ZURICH • MEXICO CITY

MINNEAPOLIS
Honeywell
CONTROL SYSTEMS

ENVIRONMENT CONTROLS DESIGN

House for Dorothy Levin, Palm Springs, California

William F. Cody, Architect



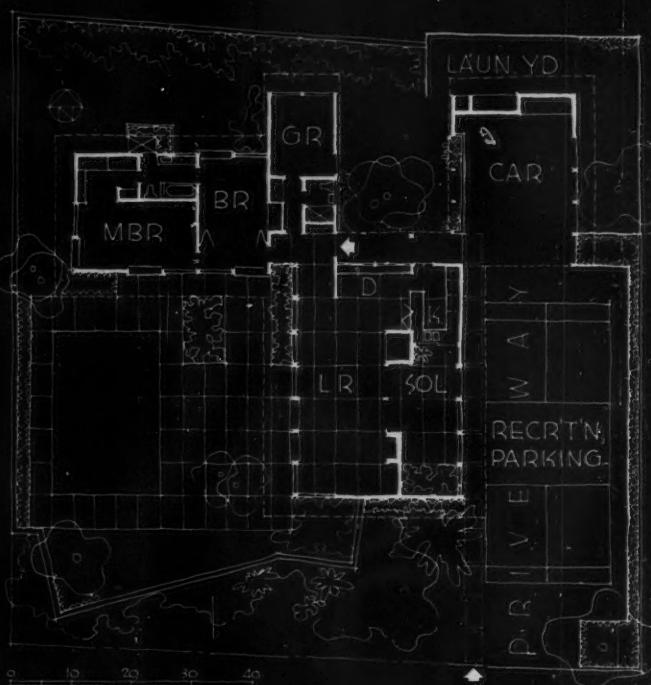
PALM SPRINGS HOUSE

William F. Cody, Architect



Julius Shulman Photos

Good architecture has always taken into account local topography, climate, customs and economics; however, one seldom finds a building so closely related to its locale as is this house. In a new Palm Springs subdivision, it has a more distant view of the mountains than many of its type in the vicinity, and as the subdivision grows it is bound to acquire more urbanity than will outlying houses. Yet the desert's influence will continue. Protection against extreme temperatures and brilliant light, co-existent with glass walls, and development of the entire lot (not merely the house) as the living unit, were the principal design postulates. Terrace and living areas are laid out on a 3-by-5-ft module, expressed in floor striping and window mullions.



Top of page: glass-roofed solarium; view across walled court to living room. Left: kitchen counter, semi-hidden, may double as a bar, or be closed off with folding doors. Bottom: left, looking from dining area through glazed wall to small court; right, view from east, where badminton court, drive and parking lie between adobe wall and the house proper.



PALM SPRINGS HOUSE . . . William F. Cody, Architect



Julius Shulman Photos

From almost any point indoors there is a pleasant vista through adjoining rooms, across the adobe wall surrounding the planted courts, to the San Jacinto Mountains. Interior walls of guest room and kitchen fold so these rooms can be thrown open or closed off. The exterior shower is for use with a possible future swimming pool. House is wood frame; ceiling joists are exposed in main rooms, with glass roof panels in solarium. Roof surfacing is heat-reflecting; insulation is mineral wool; heating, electrical. There is a cooling unit, and windows have awning-type screening to cut heat and glare. Floors are asphalt tile over concrete; terrace paving, cement with redwood strips.



Top, left: guest-room-den wall folds, throwing room open to view of court; right, looking from living room through solarium to drive and badminton court. Notice progression from delicacy and refinement, in the interior, to less carefully finished materials—for instance, adobe wall—where

the property meets the desert. Bottom of page: looking the other way, from solarium to living room and courtyard. Planned for all-year, indoor-outdoor living, the house is designed around a 3-foot by 5-foot module; note panels of concrete paving separated by redwood strips





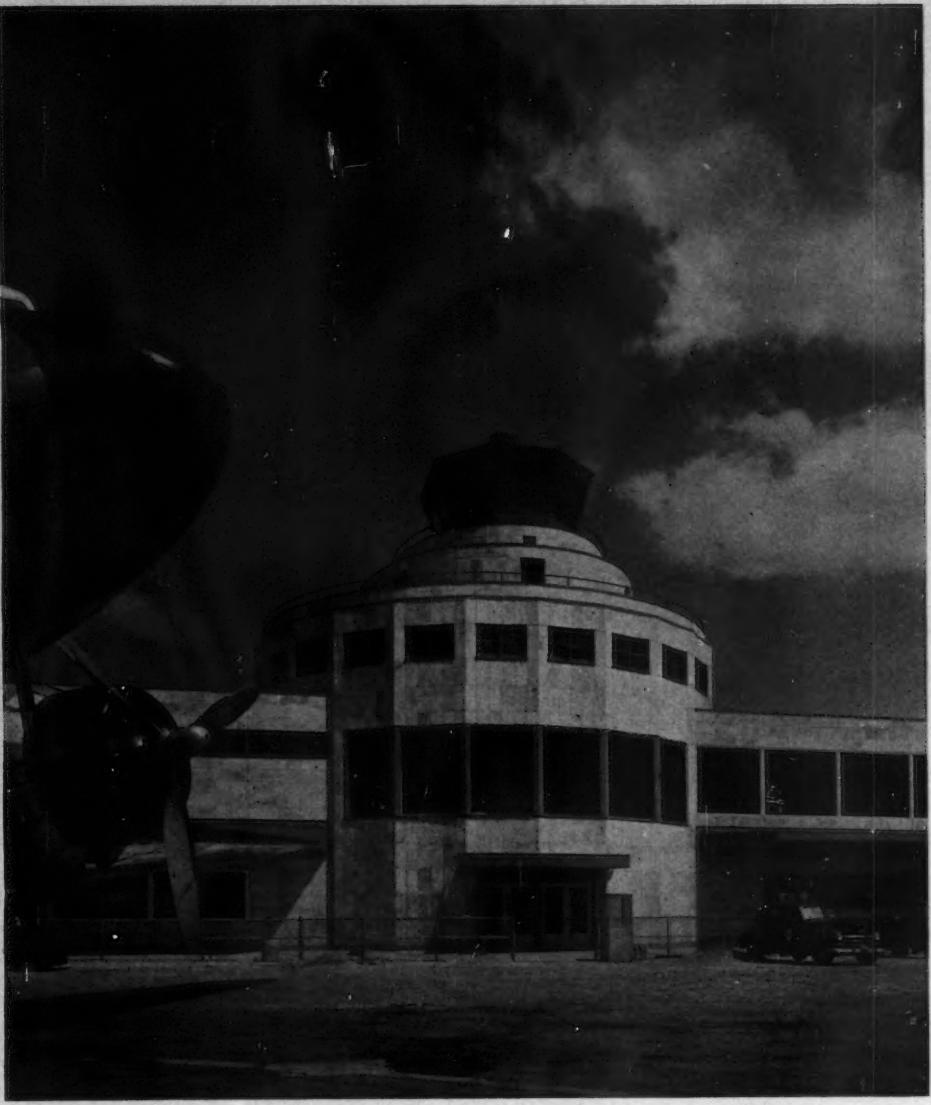
STANDARD UNIT SCHEME VARIED TO SPEED

Hedrich-Blessing Studio Photo

Paul Gerhardt, Jr.

City Architect





Hedrich-Blessing Studio Photo

AIRPORT TRAFFIC

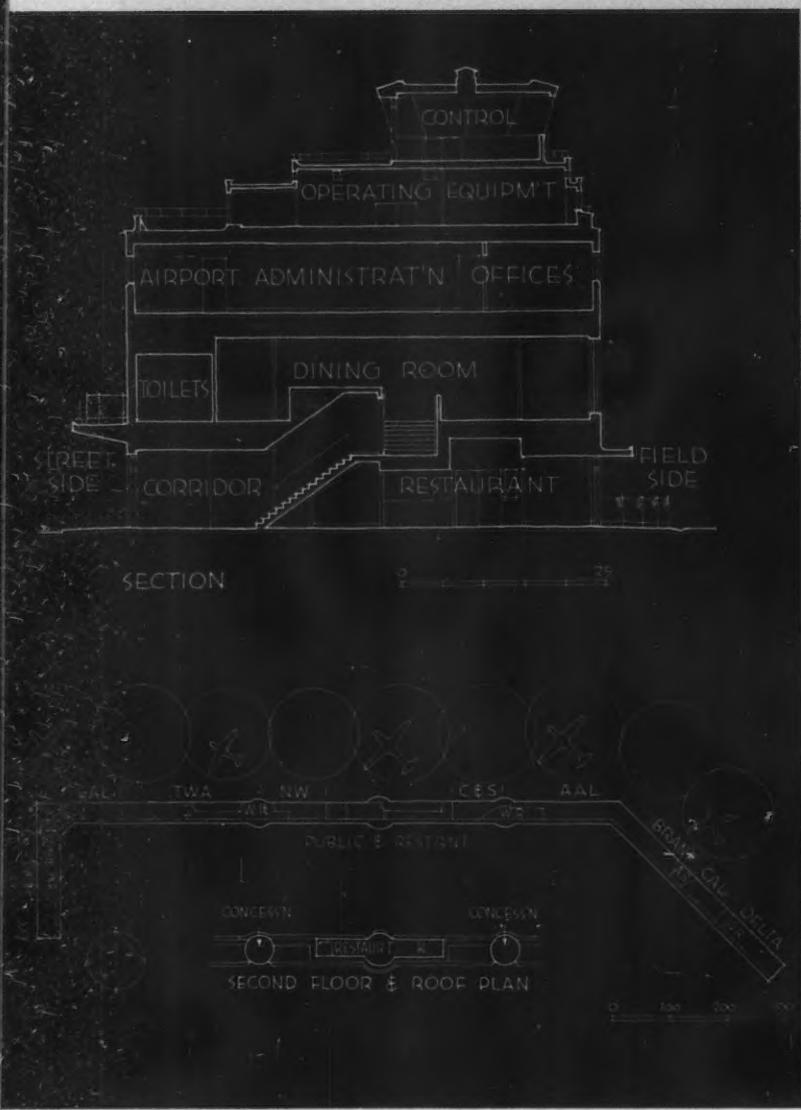
Chicago Municipal Airport Terminal

An extended unit scheme helps allay concern for some 2,500,000 passengers accommodated yearly in the Chicago Municipal Airport Terminal: each air line has individual facilities to serve its planes and passengers. Two lines share each waiting room. A corridor links units to the central block housing administration, operational space and concessions. The two major zones, air and ground transport, are bridged by a narrow plan, permitting short, direct flow of separated passenger and baggage traffic. Casual spectators

have good observation posts, removed from operational activities, in a central public space and promenade roof deck.

The building was designed as low cost construction to be amortized within 10 years. Planning for a longer period was deemed unwise: perpetual change is expected in aviation requirements. For flexibility, the steel structure uses a module of 3 ft 4 in. longitudinally, six units to a bay. Exterior walls are buff-tinted concrete slabs, backed by concrete block; roof is poured gypsum.

CHICAGO AIRPORT



Hedrich-Blessing Studio Photo

Compact, private working space for airport operation and administration is provided on top floors of central tower. Glazed control room has remote controls for field lights, radar, radio and recording devices. Equipment is on floor below and in basement. Building is 40 ft wide, almost $\frac{1}{3}$ mile long; has stations for 15 planes

Five waiting rooms (three shown below left) serve nine air lines. Each line has separate baggage rooms, ticket counters and offices. Design standards for furniture, signs, etc., set by air lines and architect. Counter design at top left provides extra baggage space, facilitates traffic. Floors are asphalt tile, ceilings acoustic plaster. Partitions are gypsum tile and plaster, built free of structure for easy change

Hedrich-Blessing Studio Photo



Hedrich-Blessing Studio Photo

Concessions help defray airport operating costs. Revenue is derived from parking meters, promenade deck, lockers, clocks and, above all, eating facilities. Main dining room overlooks field (above right), shares second floor of central tower with kitchens. Restaurant on first floor (below right) is served by dumbwaiters, remains open 24 hours a day. Refreshment stands are in flanking towers on promenade deck. Refrigerators and locker rooms are in basement

REDEVELOPED WITH A FLAIR

First Step in Scheme for Palm Springs Corp.,
Palm Springs, Calif.

*A. Quincy Jones, Jr., Architect;
Paul R. Williams, Associate*

IN this restaurant's first season, customers were so successfully drawn into the interior court and surrounding shops that the owners of the property are now trying to speed up the remodeling of the entire block. As the photographs on these four pages show, considerable flair and flavor were used to good effect as a customer lure.

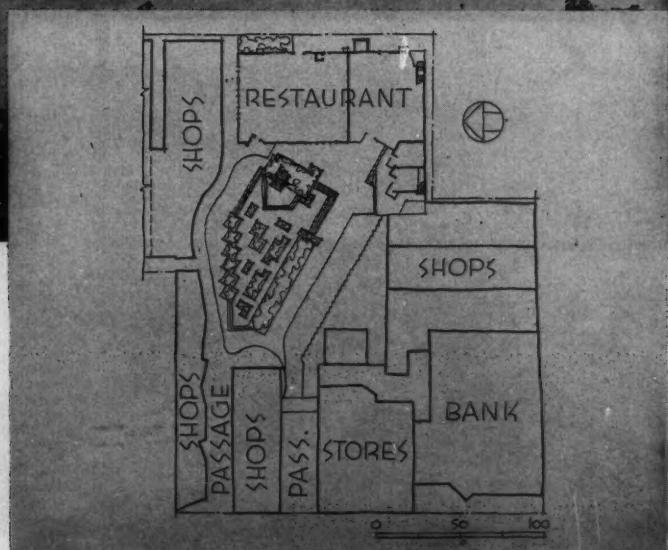
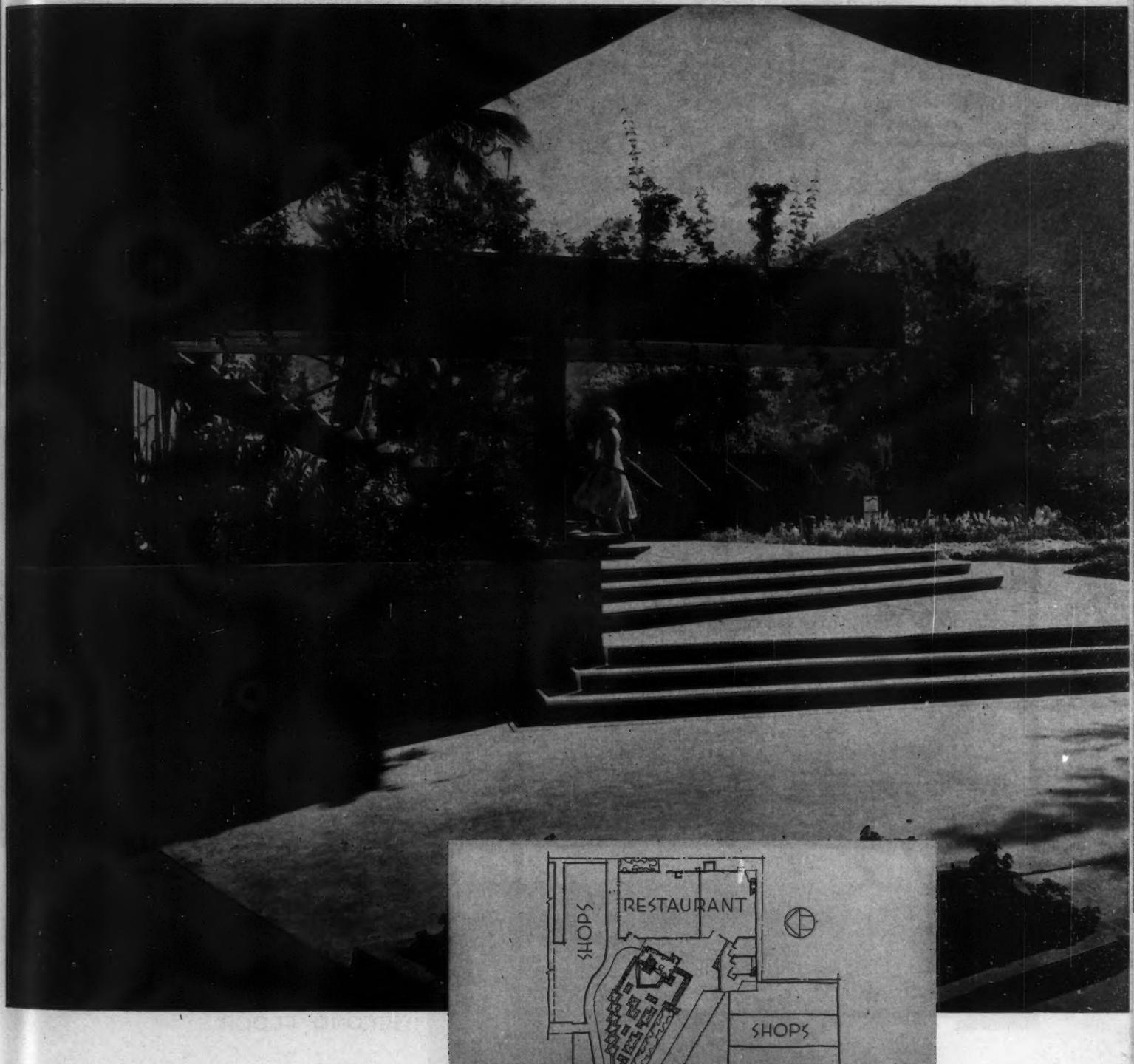
The new restaurant building was the first step in the remodeling project. Its design was complicated by the fact that the existing foundation and basement had to be used, and also by the leases already signed with four different types of tenant. The building houses the Town and Country Restaurant, the offices of "The Desert Sun," Palm Springs' newspaper, and three shops, plus the offices of the Palm Springs Corporation, owners of the property, and four small apartments. Exterior walls are cement plaster and redwood; interior walls are plaster, redwood and Roman brick; ceilings are acoustically treated. Framing is steel.

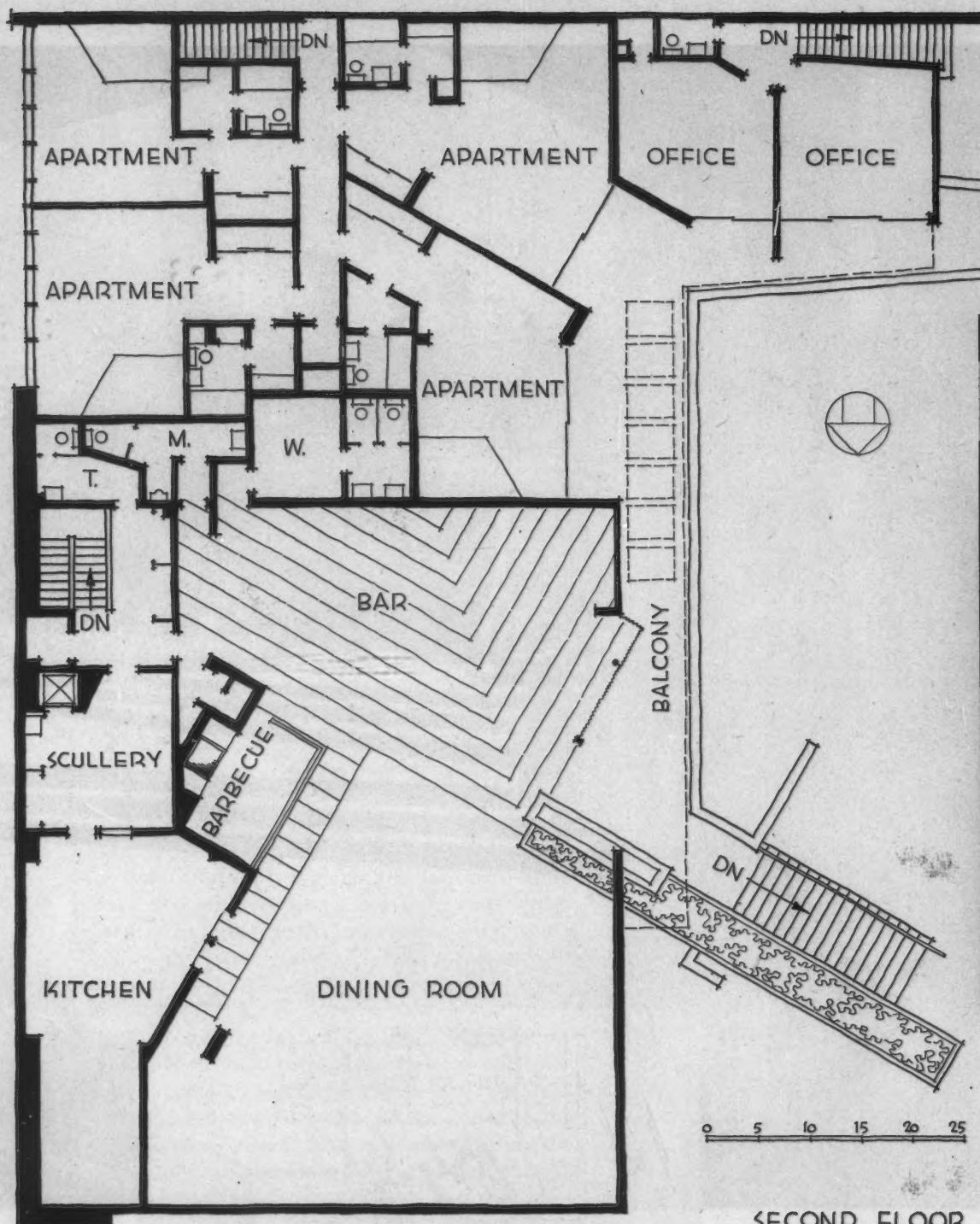
Completion of the entire project originally was expected to take two or three years and called for a careful construction schedule. To avoid even brief interruption of business, as one section is finished, a tenant from an untouched section is moved into it to make way for further remodeling or rebuilding.



Julius Shulman Photos

Spark of the redevelopment scheme is the atmosphere-packed patio leading to the Town & Country Restaurant. The restaurant building, first one completed under the plan, houses also offices and shops, and has four small apartments on second floor (see plan, next page)





The second-floor apartments have their own entrance from Indian Avenue along the south side of the block, but shops and restaurant face the court (opposite page). Commercial tenants are varied, including the local newspaper, and three different types of store



Julius Shulman Photos





HOSPITALS

ARCHITECTURAL RECORD'S
BUILDING TYPES STUDY NO. 158



DOUBLING the amount of federal funds for hospital construction — one of the final authorization acts of the Congress last fall — makes hospitals perhaps the most important of all planning assignments now before architects and engineers.

It means not only more hospitals, of all kinds, in the future; it also means more architects designing hospitals. What was once considered a fairly specialized task for designers is now work for any well organized architectural office, as America becomes increasingly determined to bring better hospital service and medical care to large city and remote area alike. Doing a hospital of course is still a highly intricate assignment, made more so by each advance in medicine. At the same time more and more data are available to planners. The careful basic research of the architectural staff of the U. S. Public Health Service, under the direction of Marshall Shaffer, has put before the design profession a valuable fund of planning information. (See the following studies in ARCHITECTURAL RECORD: "Elements of the General Hospital," June 1946; "Type Plans for the General Hospital," January 1948; "Public Health Centers," July 1942; and the Building Types Study on Hospitals, May 1949.)

In 1950 the RECORD will step up its coverage of hospital design. This current Study deals largely with special types of hospitals and other health facilities, though one general hospital is also included, and others will be presented throughout the year.

It is worth noting that the more special types of hospital may be expected to appear more frequently in the

lists of projects receiving federal aid. While the early concentration was on the acute general hospital and the smaller health facilities for rural areas, the Hill-Burton Act is quite broad. It is to be expected that the increased allotments will reach further into the needs for facilities for cancer, T.B., mental illness, and for

buildings for public health work and for medical research.

Under terms of the new legislation, federal grants to states are increased from \$75 to \$150 millions annually, and the period during which allotments can be made is extended to June 30, 1955. In addition a new formula has been developed which permits a federal contribution ranging up to 66.6 per cent of the total construction costs for new hospitals as against 33.3 per cent under the original law. The new law provides also for federal grants totaling \$1,200,000 a year for five years for research programs looking toward coordination and improvement of hospital services.

Surely the new law speaks well of the concept and administration of the original hospital program, which took shape in the Hill-Burton Act of 1946. Whatever the fears about the "welfare state," there have been no agonized screams about the program for improving the country's health facilities. From federal offices to volunteer committees in outlying communities the program has won cooperation and interest.

Architects have responded in the planning, in the committee work, and also in the basic study. Large attendance at the Southern Conference on Hospital Planning and the New

England Regional Seminar on Hospital Planning sponsored by the A.I.A. have had their share in sharpening the techniques of hospital planning. Meanwhile similar groups of the American Hospital Association, the American Medical Association, and the new American Association of Hospital Consultants have been researching both the technical problems of planning and the procedure of hospital programming, for better harmony between architects and consultants. Such efforts will add rapidly to the literature on hospital planning, and will insure wise spending of the immense sums available for extending health facilities.

— Emerson Goble



U. S. Public Health Service photos



TYPE PLANS FOR STATE PUBLIC HEALTH LABORATORY

FEDERAL SECURITY AGENCY

Public Health Service
Division of Hospital Facilities



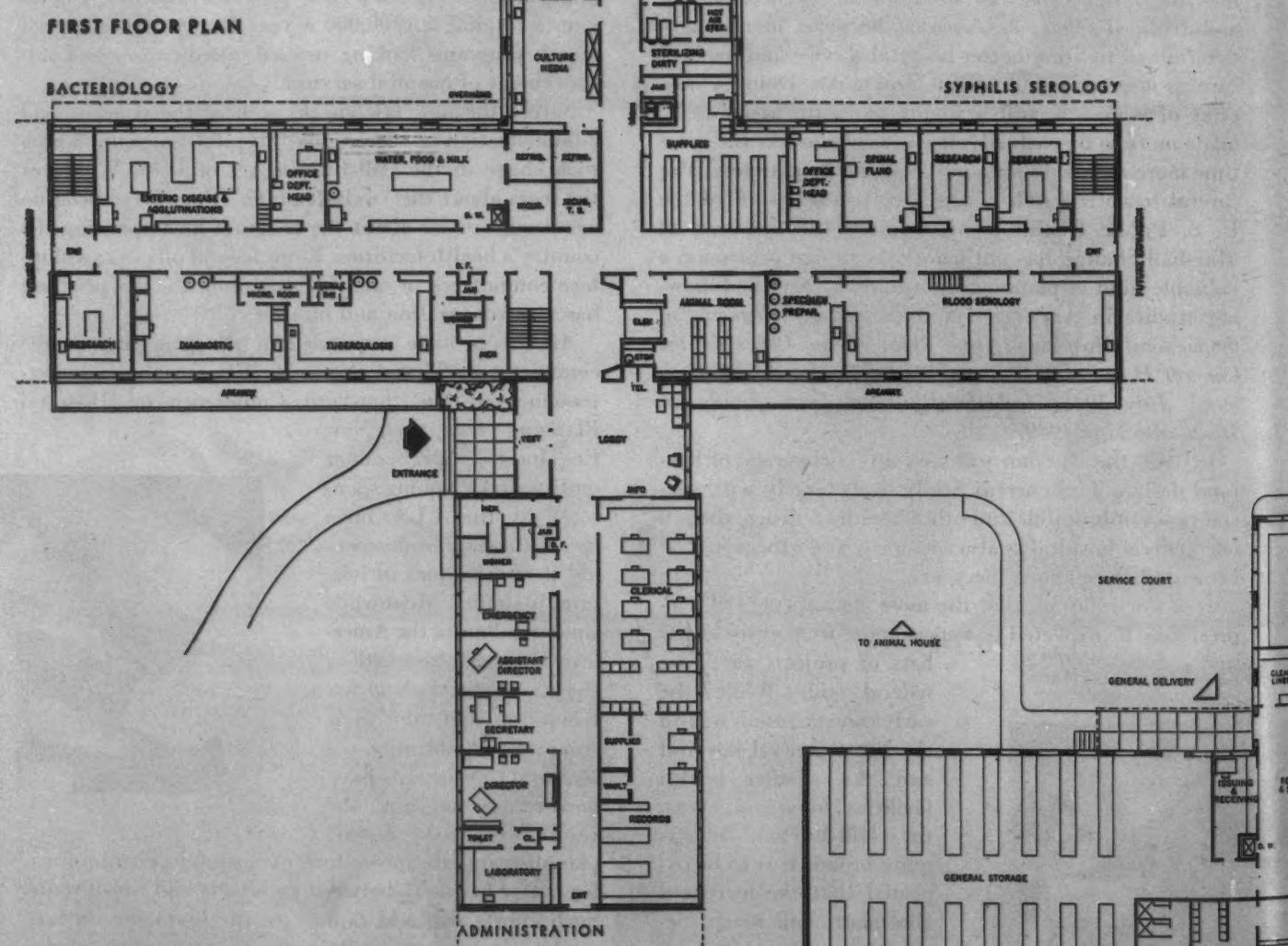
STATE health laboratories have steadily increased their activities in recent years, usually in facilities that were outdated and inadequate. The need for new buildings has become so apparent that two suggestive type plans have been developed through collaboration between the Conference of State and Provincial Public Health Laboratory Directors and the Division of Hospital Facilities of the Public Health Service.*

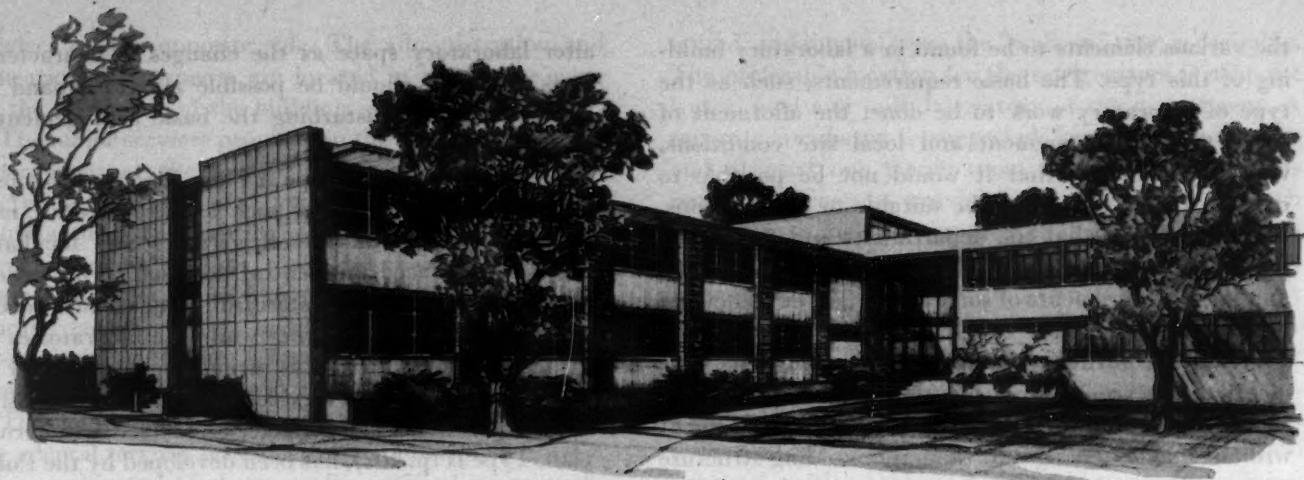
These plans are intended merely to assist the laboratory director and his architect in formulating a sound basic program for the solution of their particular problem. They serve also to explain the relationship of

* Acknowledgement is made of the assistance of Dr. Seward E. Miller, Chief, Laboratory Div., Communicable Disease Center, Atlanta, Ga.

FIRST FLOOR PLAN

BACTERIOLOGY



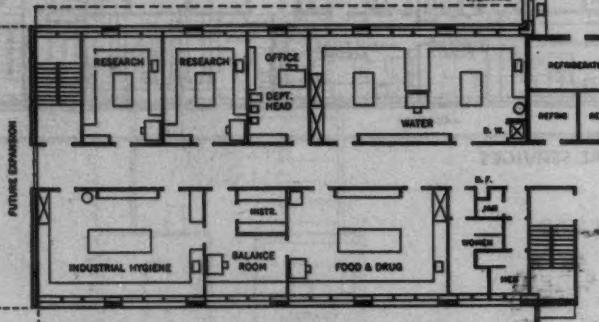


LABORATORY TYPE A

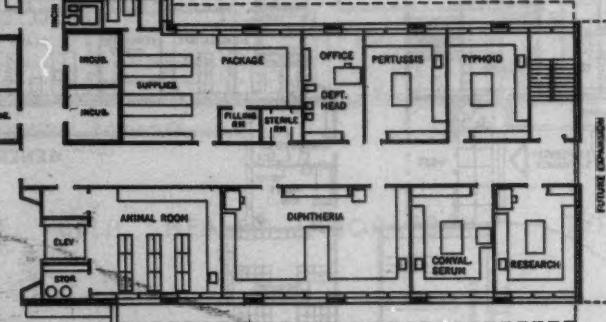
GENERAL SERVICES BIOLOGICALS

SECOND FLOOR PLAN

CHEMISTRY

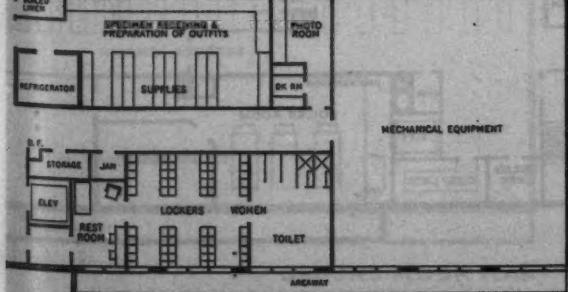
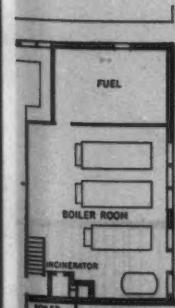


BIOLOGICALS

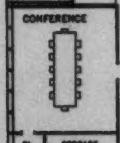


FAVINE DIVISION

REGULAR DIVISION



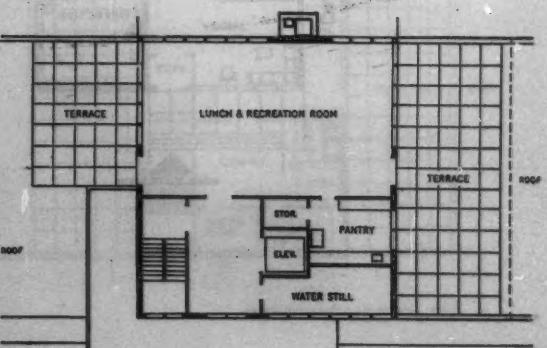
CONFERENCE



ASSEMBLY ROOM

EDUCATIONAL

N
GRAPHIC SCALE
0 4 8 12 FEET



GROUND FLOOR PLAN

PENT HOUSE PLAN

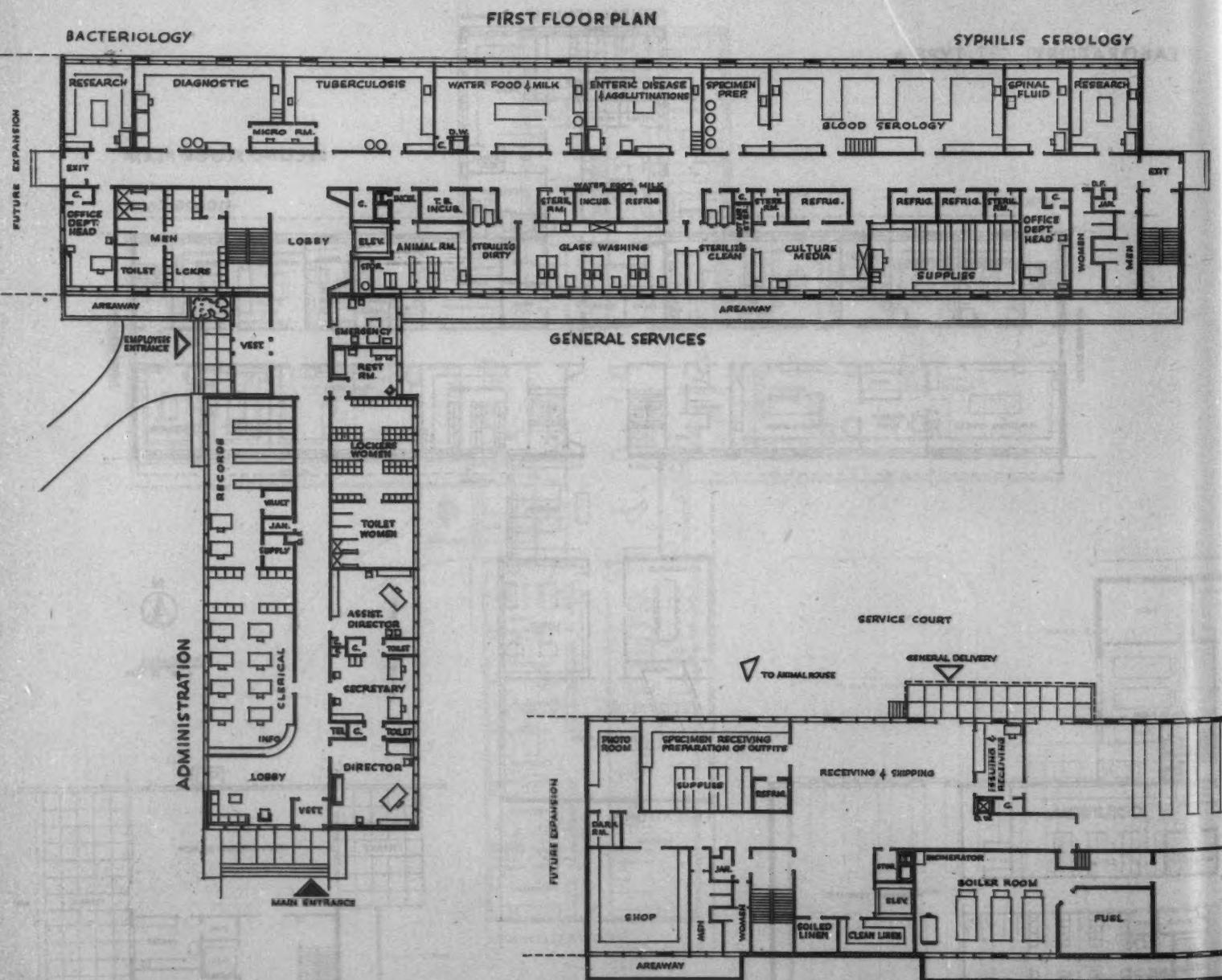
the various elements to be found in a laboratory building of this type. The basic requirements, such as the type of laboratory work to be done, the allotment of space to each department and local site conditions, will vary so much that it would not be possible to develop a plan that would be suitable to all situations. It will be found that the departments and their component elements as shown in these plans will exceed minimum requirements of some states and be somewhat below those of others.

Maximum flexibility, simplicity of piping and ease of expansion are essential in a laboratory building. It should be possible to rearrange spaces and equipment without making changes in the basic building structure or its mechanical and electrical system. Such flexibility will greatly reduce the time and expense required to

alter laboratory space as the changes in character of work occur. It should be possible also to expand the building without disturbing the basic arrangement of the plan.

The accompanying Type A plans illustrate this principle. The fixed facilities, such as the elevator, main stairs, toilets, "walk-in" refrigerators and incubator, have been placed in central location. The general services (glass washing, sterilizing and culture media) are located in the rear wing while the laboratories are in the two side wings. This arrangement will allow expansion of the general services and the laboratories.

Other solutions are possible, of course. An alternate plan, Type B (p. 102), has been developed by the Public Health Service, in which the laboratories have been placed on the north side of one wing and the general



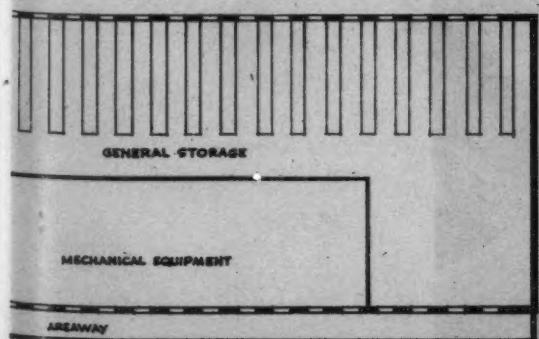
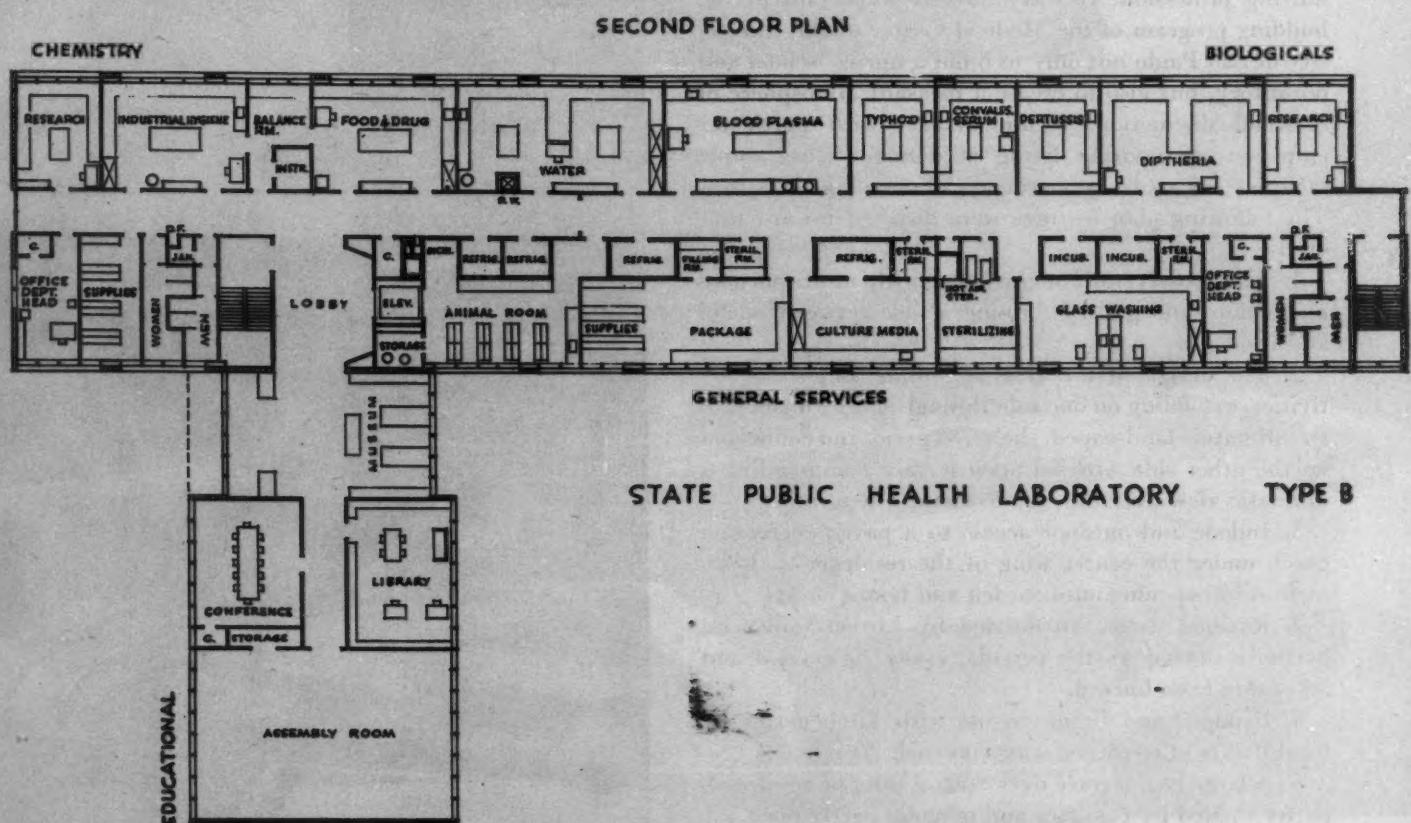
services on the opposite side. The administration and education departments are located in a separate wing on the south side of the building.

The major services provided in the state public health laboratories at the present time are in the fields of bacteriology, chemistry and syphilis serology. The manufacture of biologicals is done to a limited degree. Provision must also be made for research, teaching, central services, animal quarters, administration and storage facilities. It is highly desirable to provide a separate animal house. Where a virology department is required it too should be in a separate building.

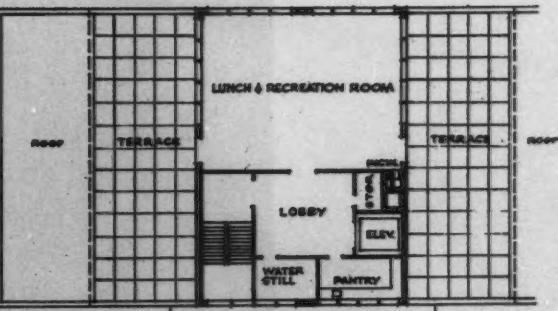
The bacteriology department should be located near the general services because of the volume of sterilizing, glass washing and culture media required in its work. Considerable refrigerator and incubator space is re-

quired, and in most cases the "walk-in" type is desirable. The preferable location for the refrigerators is near the water, food and milk laboratory of the department. A separate incubator is suggested for tuberculosis work and at least one sterile room for the department is required. Generous provision of space for a research laboratory is highly recommended. In those laboratories which do a considerable amount of microscopic work, it may be desirable to provide a small room or alcove screened from the glare of natural light.

Sixteen feet in width and twenty feet in depth have been used for the smallest laboratory in these plans. This size permits use of laboratory benches on the exterior wall and side walls to take advantage of the natural light and an island table 3 ft. 6 in. wide (without utilities) in the center leaving sufficient space for circulation.



GROUND FLOOR PLAN



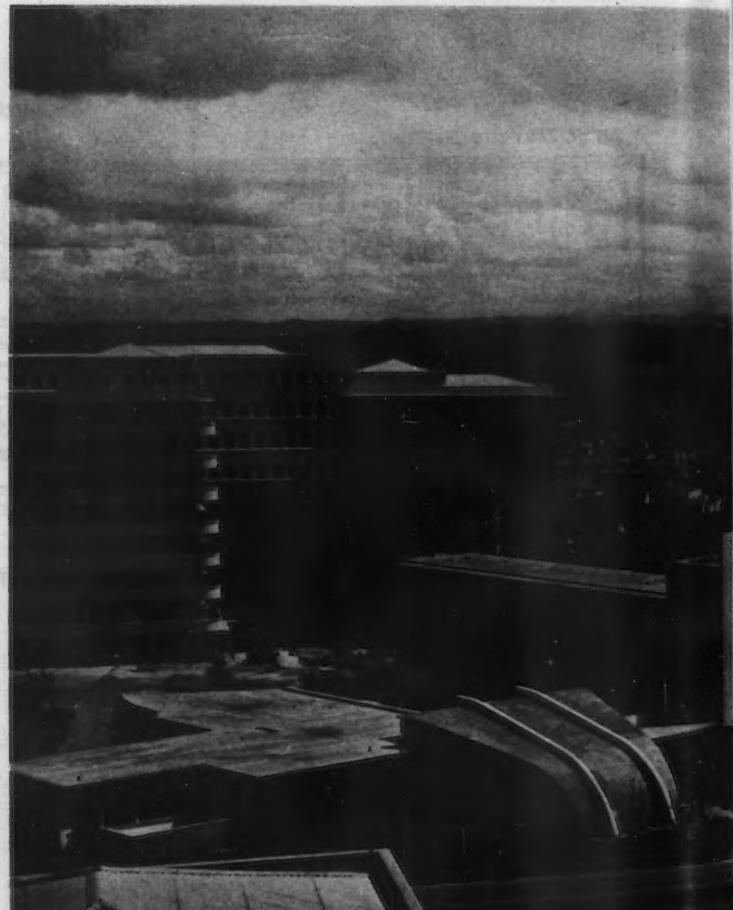
PENT HOUSE PLAN

NURSES' SCHOOL AND RESIDENCE FOR SÃO PAULO

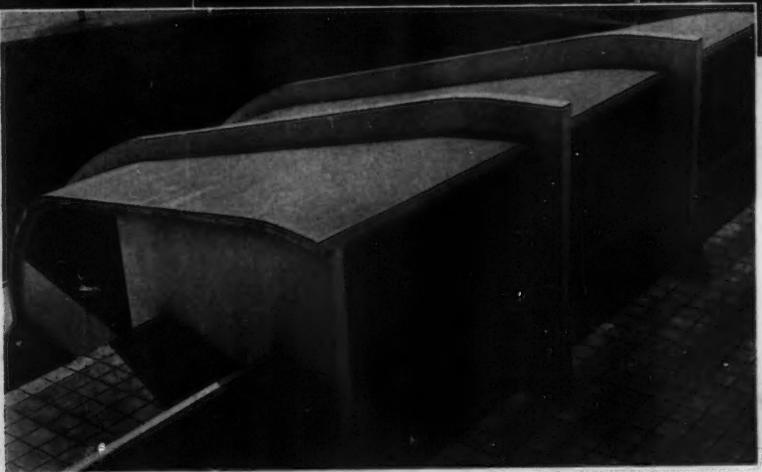
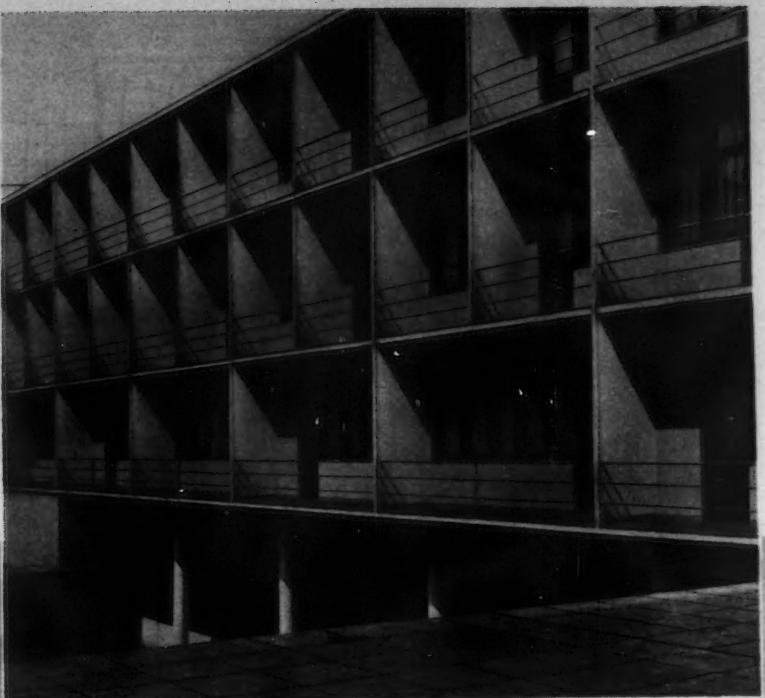
Peter Pfisterer, Chief Architect, Brazilian Field Party, Institute of Inter-American Affairs

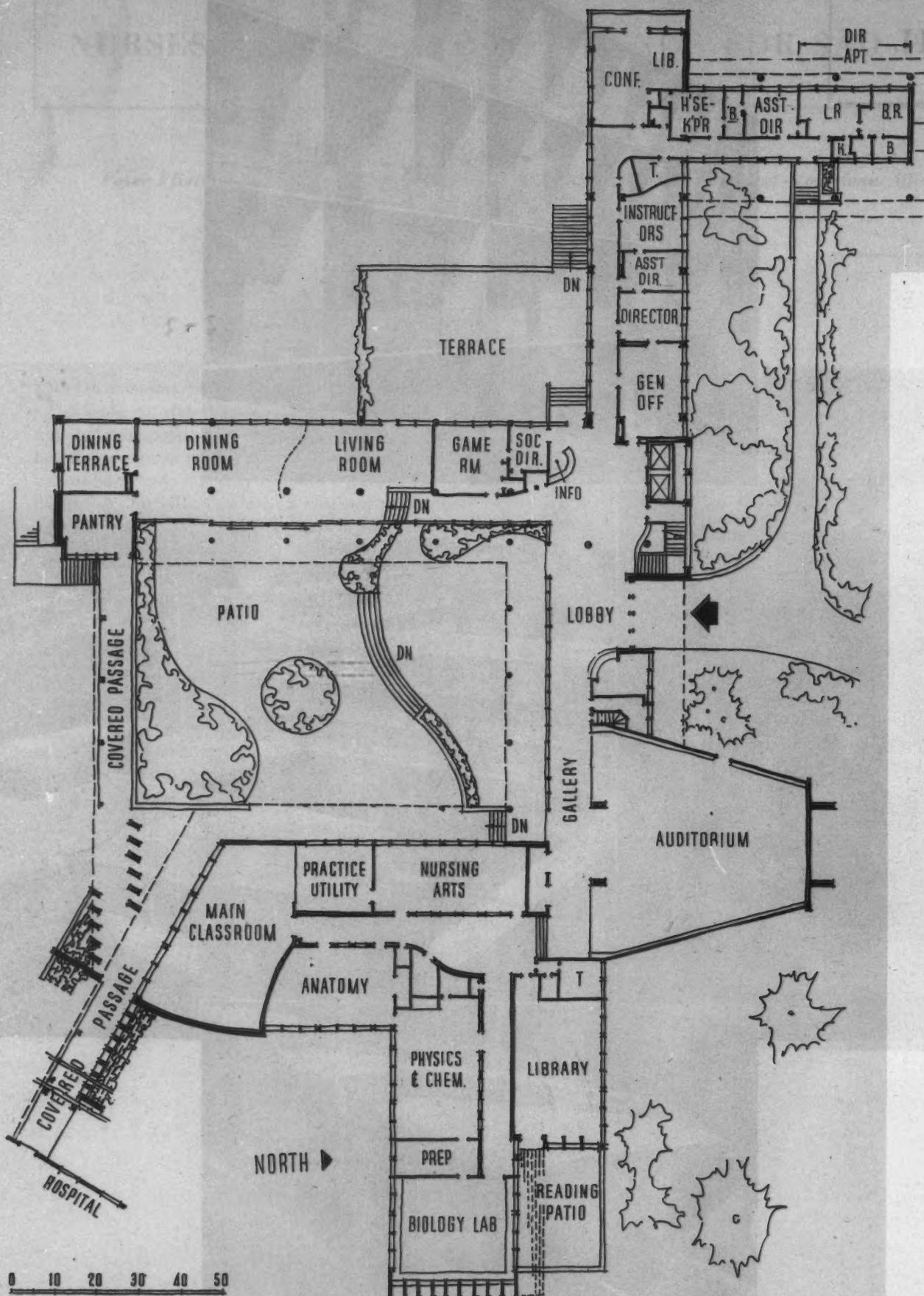
SOCIAL customs peculiar to South America make it difficult to attract girls of educated families to the nursing profession. It was therefore important in the building program of the Medical Center of the University of São Paulo not only to build a nurses' school and dormitory, but also to create a pleasant atmosphere of informal distinction, if not luxury, with particular emphasis on inviting living accommodations, ample facilities for social gatherings and recreational space. The following plan features were directed toward that end:

1. The loosely knit main floor, with multi-purpose auditorium and gallery forming a link between school and residence.
2. The design of the area for dining and social activities, extending on one side through sliding doors into an intimately landscaped, sheltered patio, and connected on the other side with an open terrace commanding a dramatic view over the city to distant mountains.
3. Indoor and outdoor access to a paved recreation porch under the center wing of the residence at basement level, opening onto garden and tennis courts.
4. Reading patio, surrounded by garden walls and partially shaded by the pergola, easily supervised and accessible from library.
5. Lounges and living rooms with kitchenettes at focal points of residence wings on each floor.
6. A large roof terrace over central wing of residence, partly shaded by canopies and pergola, partly open.

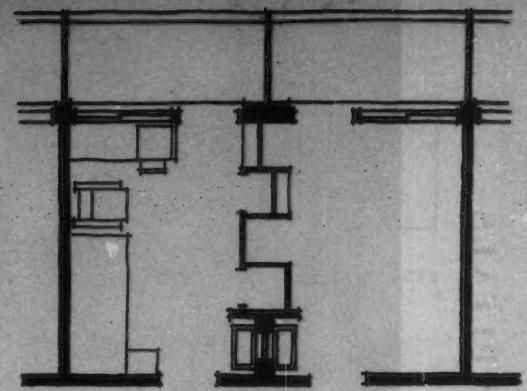


BRAZIL

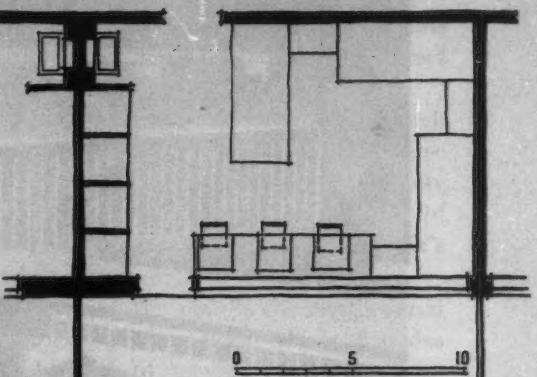




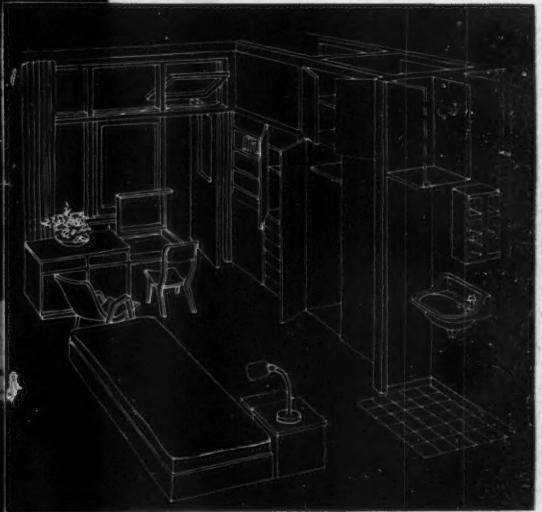
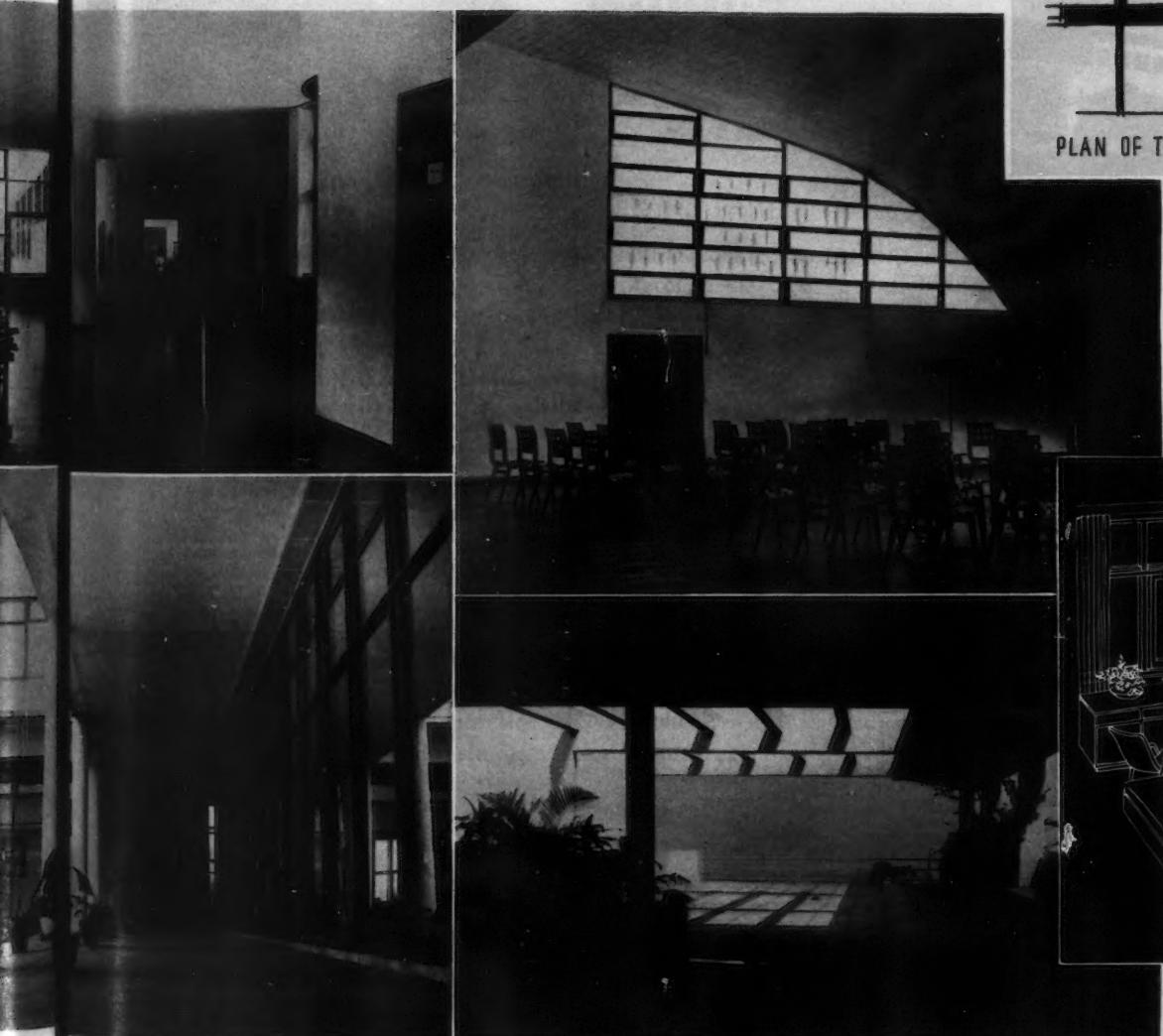
In spite of costs, the building committee decided that most students should have private rooms. Many first-year students, on the other hand, seem to prefer the company of classmates. One floor of the Z-shaped residence was subdivided into rooms for three nurses each (see detail plan). Each of these rooms takes twice the area of a single room, and therefore does not disturb a modular layout with one single room as the unit. Each pair of rooms has brick non-bearing partitions at column points, and shop-fabricated, closet and cabinet wall as the separating partition, with built-ins to save usable space



PLAN OF TYPICAL ROOM FOR 1 STUDENT NURSE



PLAN OF TYPICAL ROOM FOR 3 STUDENT NURSES



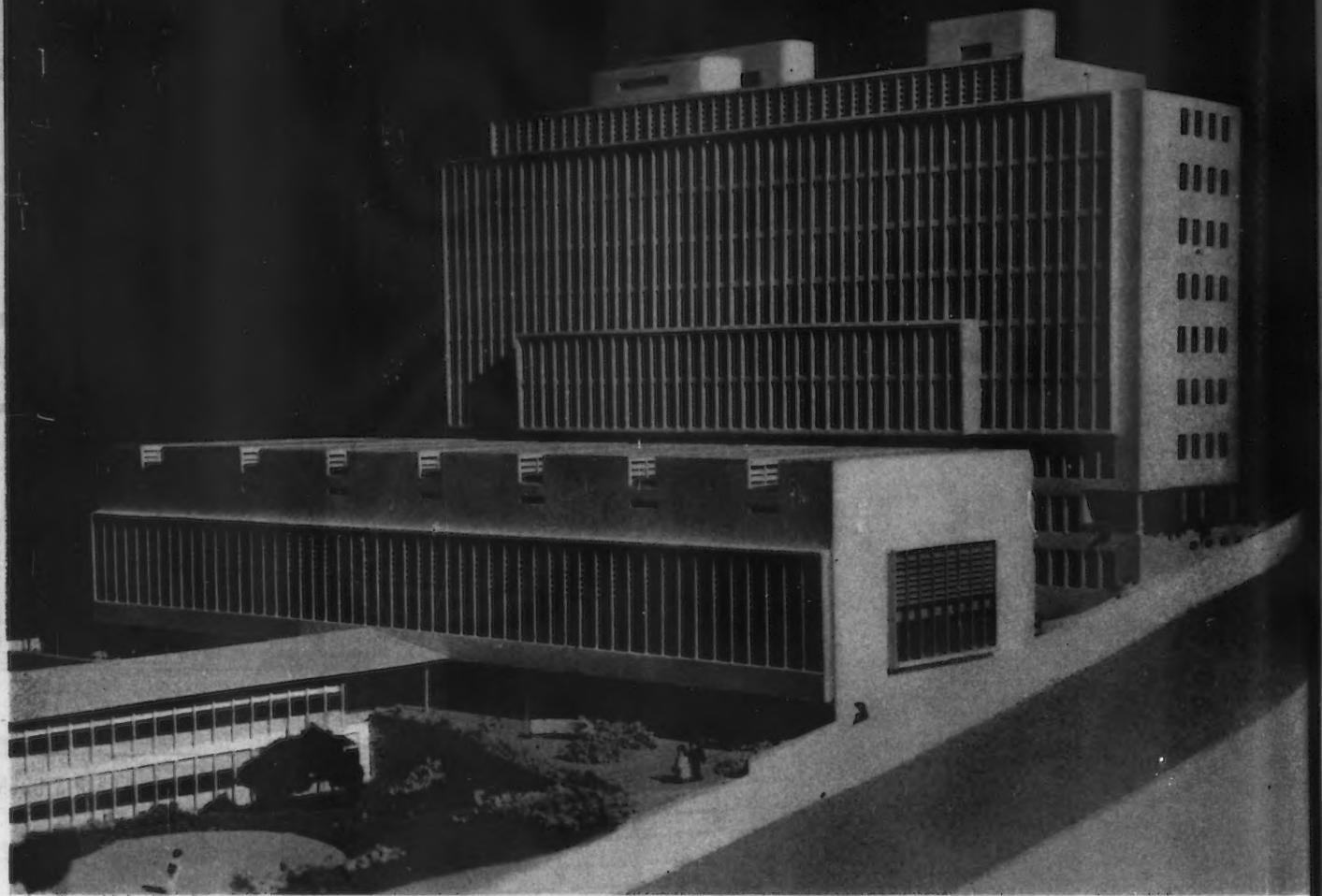
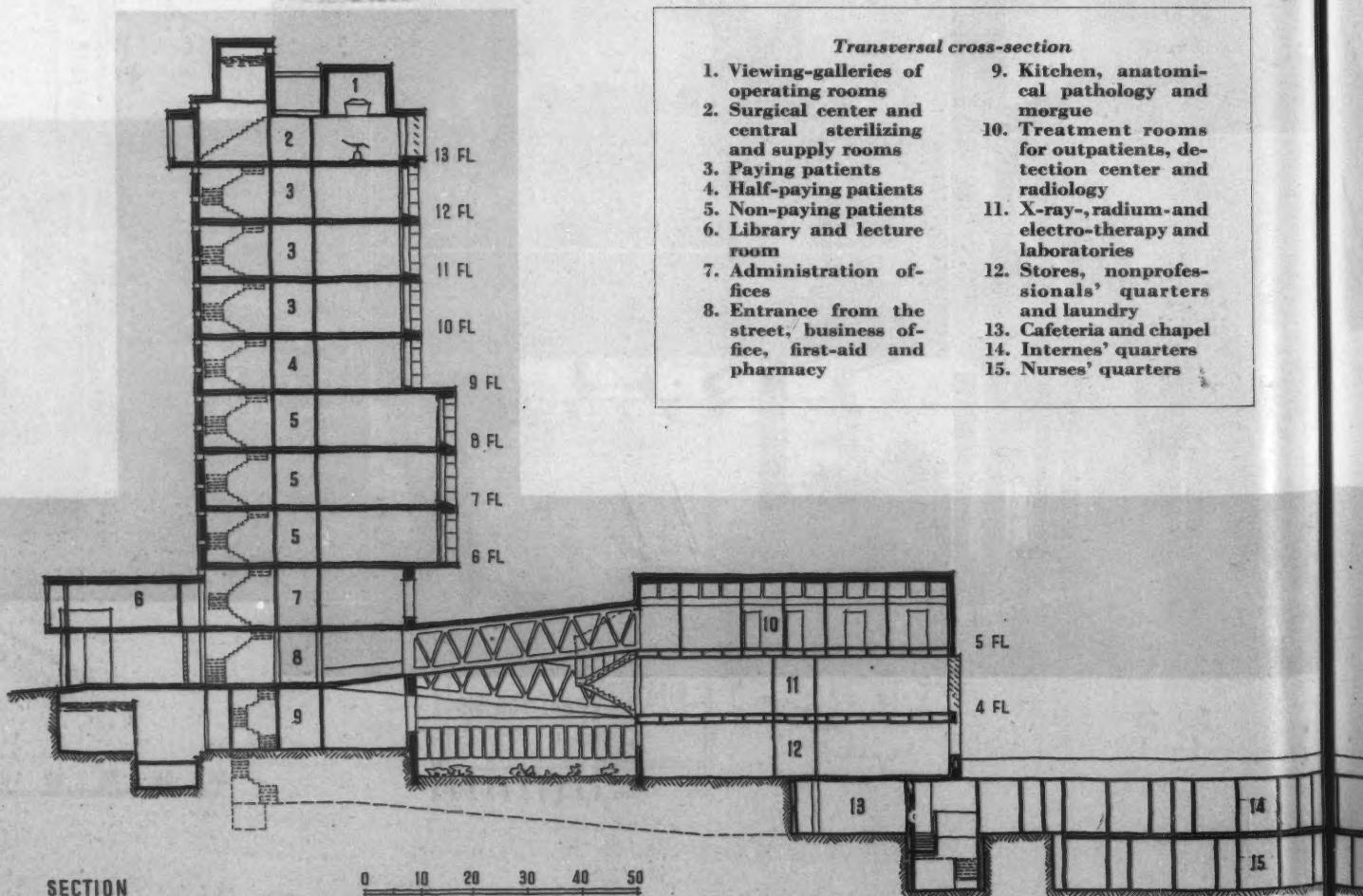


Foto-Curt



INSTITUTO CENTRAL DO CANCER, SAO PAULO

Hospital Antonio Candido de Camargo; Rino Levi, Roberto Cerqueira Cesar, Architects

THIS projected South American cancer hospital provides an interesting comparison with North American progress in hospital design, always remembering, of course, that there are some foreign customs to be taken into account. It might seem strange, for example, to see two separate banks of elevators, one for "paying patients," the other for "charity patients," but in South America it seems perfectly logical. One might hazard the guess that eventually such differences will gradually disappear, as each point is evaluated, but probably they never will completely.

The three building units shown are: one for hospitalization of some two hundred patients, a second for diagnostic and treatment facilities, the third for living quarters for doctors and nurses.

The hospitalization unit of eleven stories provides beds for about 125 charity, 30 semi-private and 45 private patients. Patient rooms are oriented away from the street to the northeast, receive sun from early morning to mid-afternoon, and are effectively isolated from traffic noises. They are, however, exposed to possible annoyance from the laundry and employees' dining room on the first floor of the adjoining adjunct service unit.

Wealthy upper class patients are the prime source of revenue in many countries. It is customary in Latin America to give them added facilities and complete privacy where conveniently possible. The separation of paying patients from charity patients in both inpatient and outpatient sections is clearly evident. Waiting rooms are separate and special bath and dressing rooms are provided where charity patients may presumably put on clean clothes before entering the hospital.

The architects state that the two separate elevator groups will be used indiscriminately for hospital service

functions. It must be pointed out that while segregation of paying patients is successfully achieved by this division of elevators into two separate groups, a sizable service control problem has been created for the nurses on the patient floors and the operating room floor.

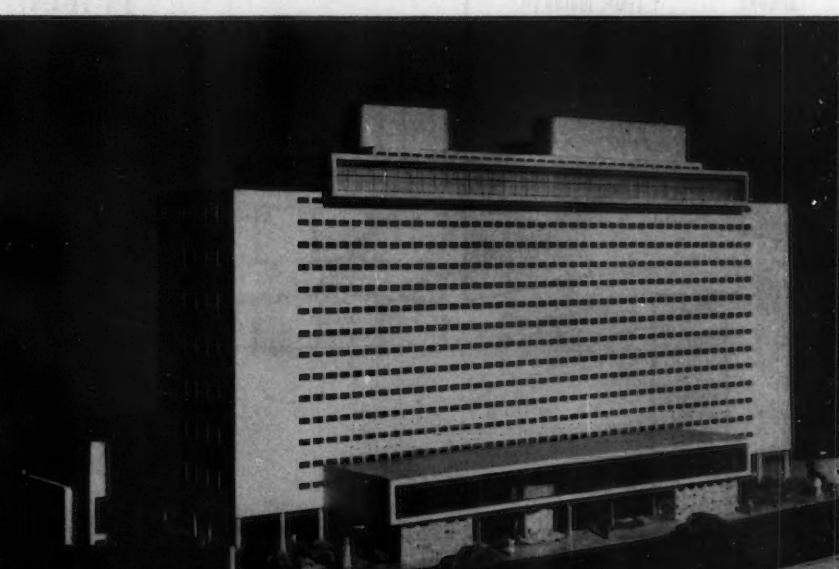
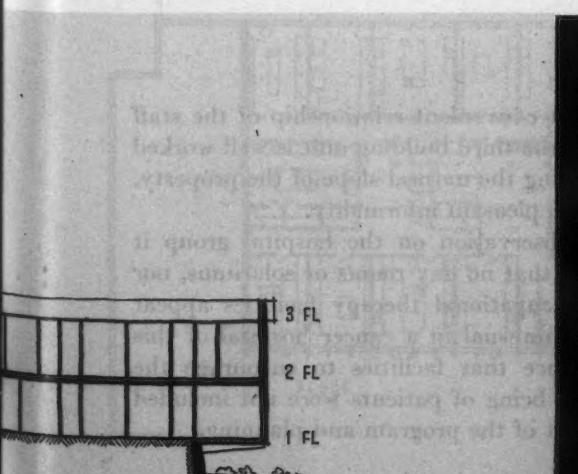
There are only fifteen patients, one to a room, in each paying patient nursing unit. This low patient-nurse ratio, which makes nursing care per patient excessively expensive, is due to the Latin American custom of providing an extra bed in each room for the patient's companion or private nurse.

An interesting feature in the plan is the cantilevered service corridor on the surgery floor which provides access from the elevator to service rooms and the sterilization center without congesting the main operating room corridor.

The three-story-and-basement second unit of the hospital group is closely connected by ramps to the hospitalization unit on the south and by corridor to the staff living quarters on the north. The hospital diagnostic and therapeutic facilities for both inpatients and outpatients have been planned in this section. Outpatients enter directly from the admission department by ramp up to the third floor examining and radiographic department or by ramp down to the second floor therapeutic services. Separate waiting rooms for charity and paying patients are again provided. Inpatients must descend to the first floor of the hospitalization building and cross over the same ramps used by outpatients to reach these facilities. There appears to be a lack of stretcher waiting space for inpatients.

The kitchen is well located with relation to nursing unit service. Food service from the kitchen to the help and staff dining rooms on the lower floor of the treatment building is perhaps a little inconvenient.

Translation and analysis by Edmund J. Whiting, A.I.A.



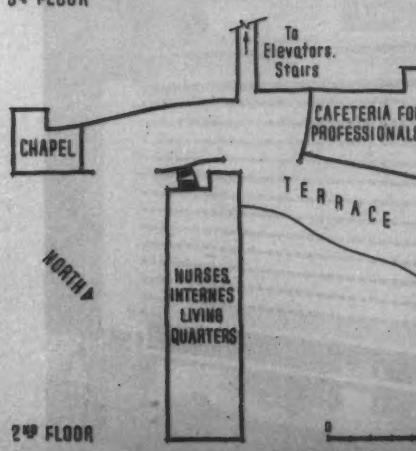
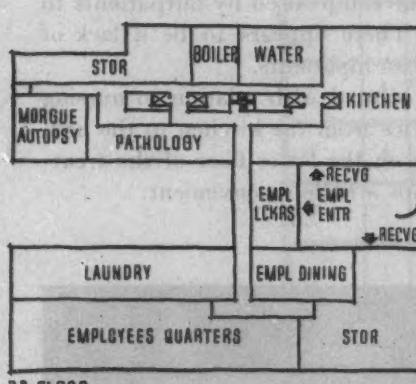
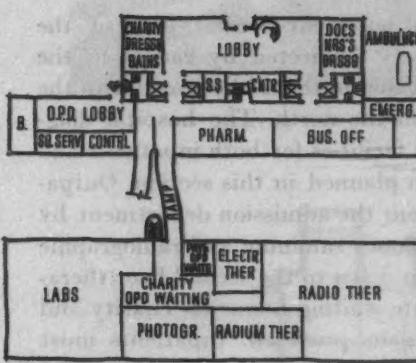
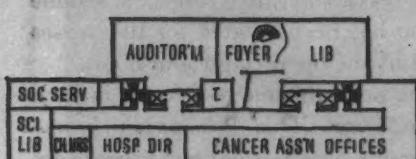
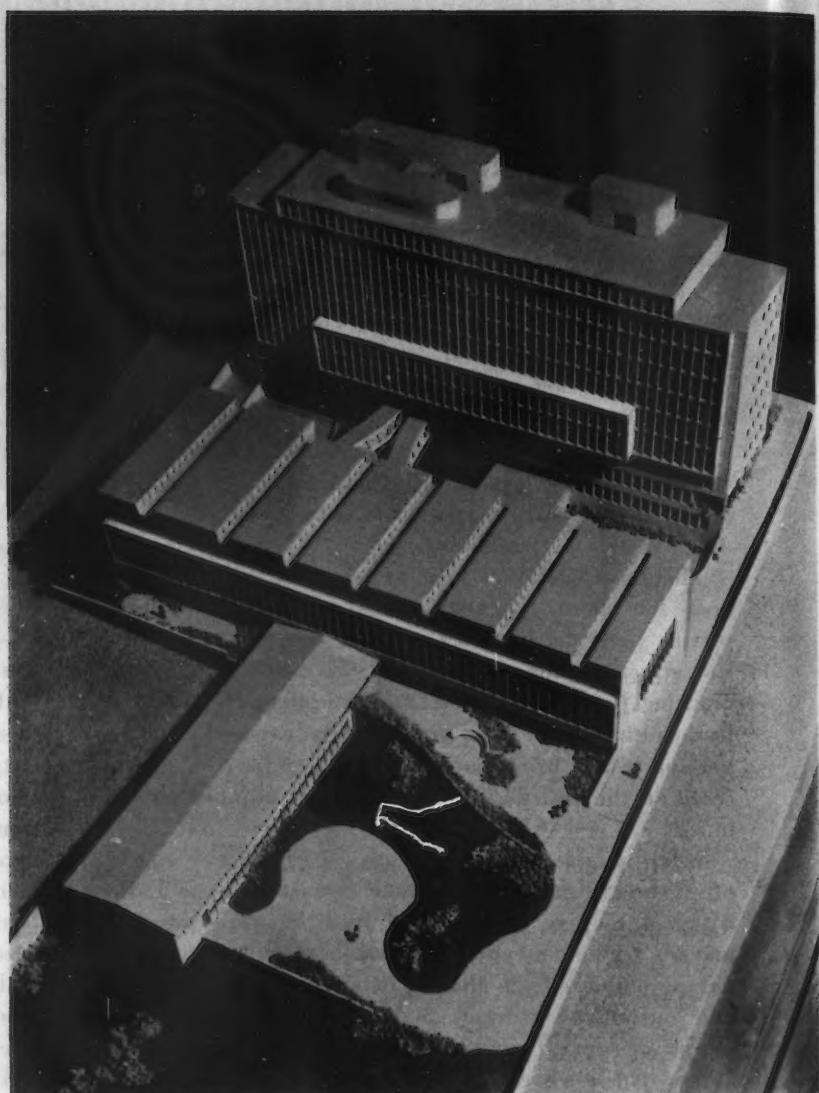


Foto-Curt



The isolated yet convenient relationship of the staff living quarters in the third building unit is well worked out. Terracing, using the natural slope of the property, has been done with pleasant informality.

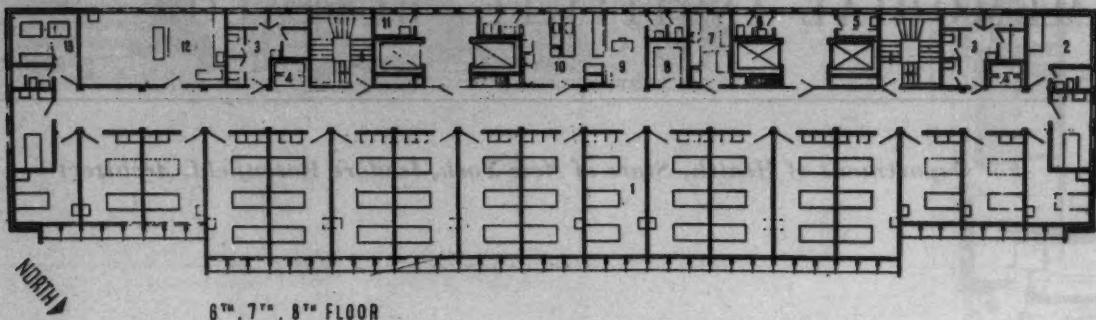
As a general observation on the hospital group it must be observed that no day rooms or solariums, nor recreational or occupational therapy facilities appear in the plan. It is unusual in a cancer hospital of this size and importance that facilities to encourage the psychological well being of patients were not included as a necessary part of the program and planning.

6th, 7th and 8th floors

1. Wards
2. Internes' rest-room
3. Bathrooms
4. Stretchers

5. Janitor closet
6. Helps' toilet
7. Office
8. Linen
9. Head nurse

10. Utility room
11. Soiled linen
12. Treatment and doctors' meeting
13. Chief doctor of the floor

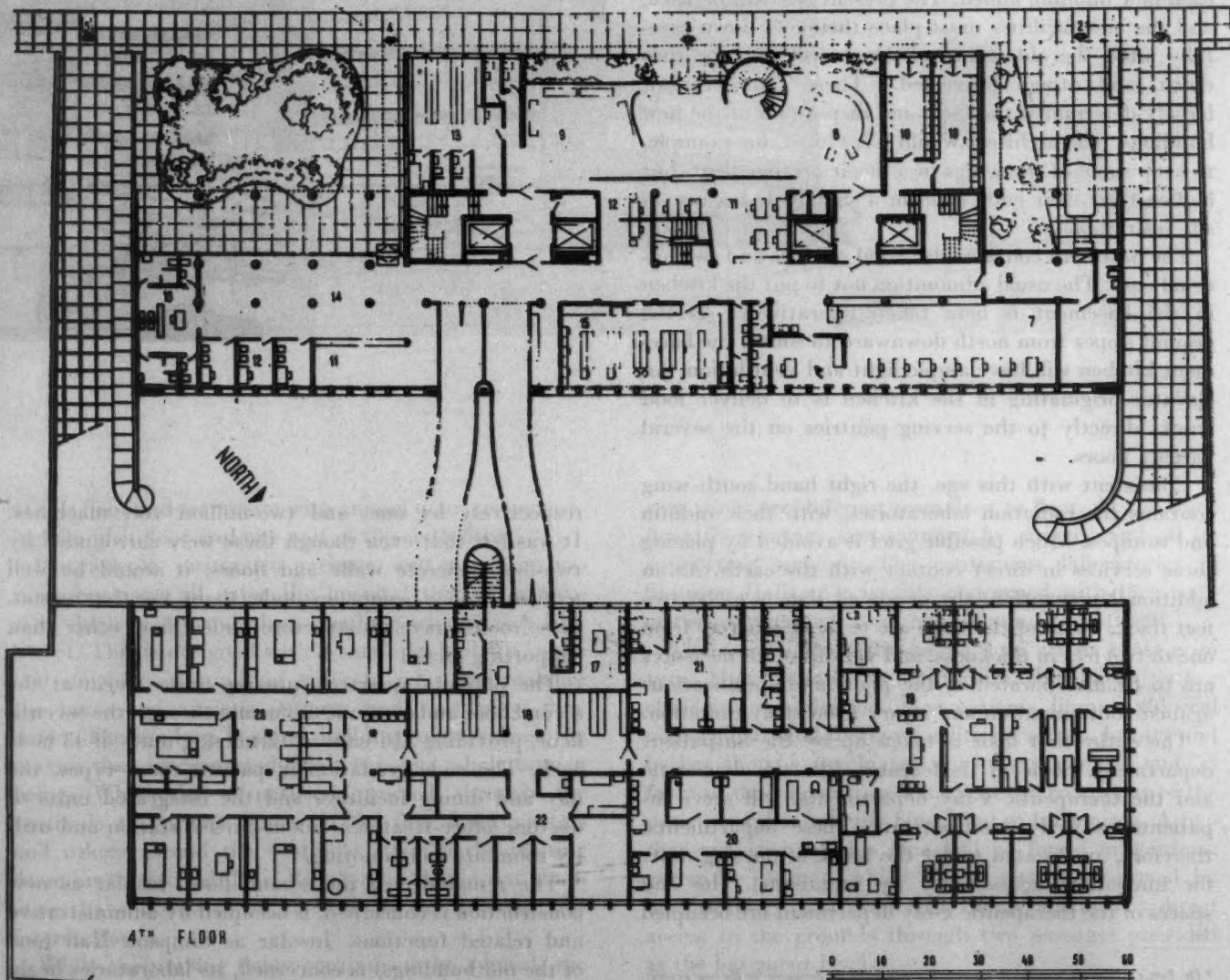


4th floor

1. Entrance of trucks and nonprofessional personnel
2. First-aid entrance
3. General entrance (patients, professional personnel and visitors)
4. Outpatients' entrance
5. Funerals
6. First aid
7. Business office.

8. Waiting space for paying patients
9. Waiting space for non-paying patients
10. Locker rooms for professional personnel
11. Admitting and cashier
12. Social inquiry
13. Locker room for non-paying patients
14. Outpatients' waiting space

15. Pharmacy
16. Bathroom
17. Waiting space for paying outpatients
18. Waiting space for non-paying outpatients
19. X-ray therapy
20. Radium therapy
21. Electro therapy
22. Photography
23. Laboratories



CANCER HOSPITAL FOR ROSWELL PARK MEMORIAL INSTITUTE, BUFFALO

For Department of Health, State of New York, Isadore Rosenfield, Architect

ONE of several projected cancer hospitals, this one well illustrates the complications of such an institution. It has everything from isotopes housed in thick concrete walls to a beauty parlor, the latter explained by the enlightened concept of hospital care which treats the whole patient, not merely his tissues.

The new buildings here will provide more than 500 beds and add a great variety of laboratory facilities to a 50-year-old institution that has gradually burst through each new building added. The present site will be used, and the new facilities must place their feet down carefully amid the old, many of which will later be torn down, and others converted.* These considerations largely determined the form and disposition of the new buildings. The architect would have liked, for example, to keep some of the wings in a linear arrangement, but had to turn their ends to form a shallow U because of site restrictions.

The basement contains the usual services and two unusual ones. The usual admonition not to put the kitchen in the basement is here taken figuratively. As the ground slopes from north downward to south, the basement kitchen will have ample light and ventilation. An elevator originating in the kitchen is to deliver food trucks directly to the serving pantries on the several patient floors.

Consistent with this age, the right hand south wing contains the radiation laboratories, with their radium and isotopes. Much possible grief is avoided by placing these services in direct contact with the earth. As an additional precaution, the overhead slab is to be two feet thick, many of the walls are to be of concrete from one to two feet in thickness, and various other measures are to be incorporated in the plans and specifications against contamination and injury from stray radiation.

The entire first floor is taken up by the outpatient department. Some of its features, like the diagnostic and the therapeutic x-ray departments, will serve inpatients as well as outpatients. These departments, therefore, are located under the block of nursing units for immediate accessibility by inpatients. The end spaces of the therapeutic x-ray department are occupied

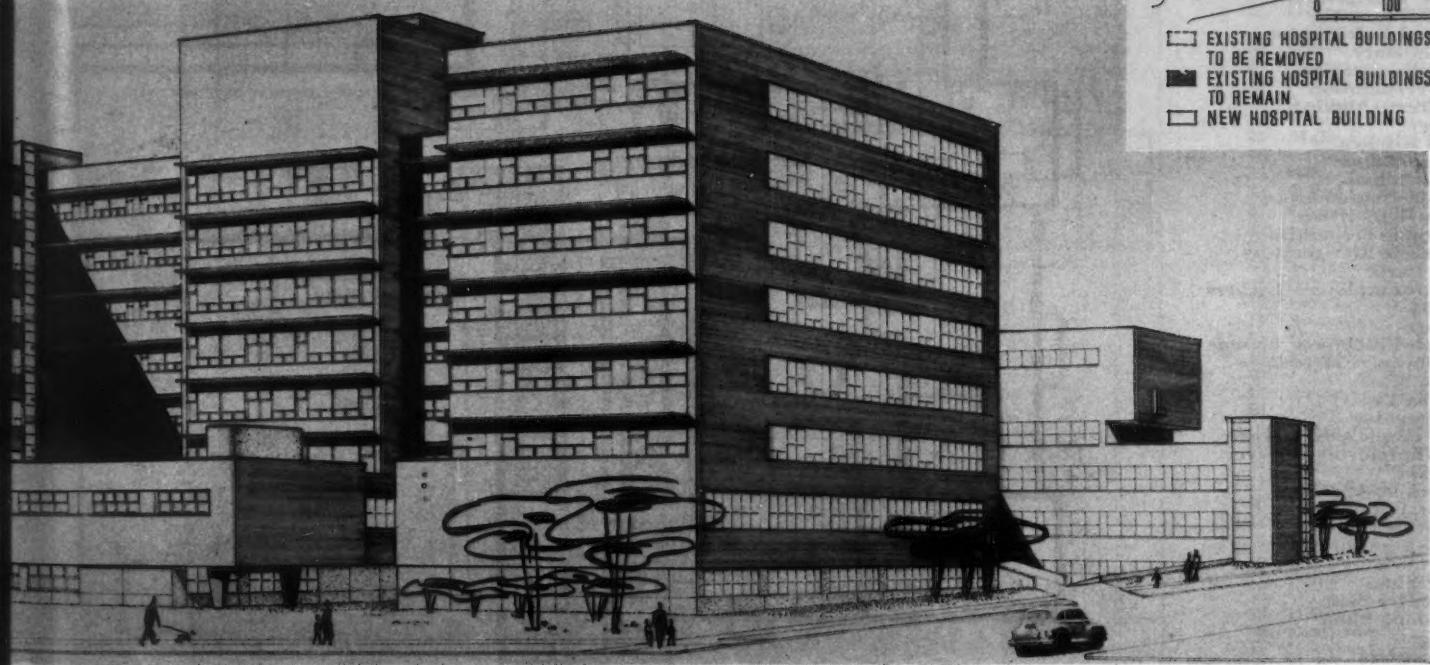
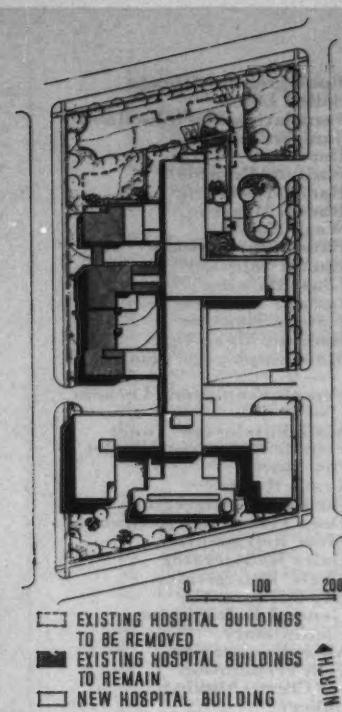
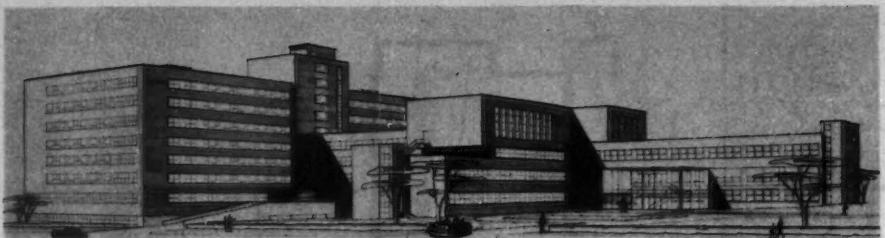
respectively by one- and two-million volt machines. It was felt that even though these were surrounded by two-foot concrete walls and floors, it would be well to avoid human occupancy under them. For that reason, these rooms have no structure under them other than supporting piers.

The patients' quarters (nursing units) begin at the second floor and continue uniformly through the seventh floor, providing 516 beds in 12 nursing units of 43 beds each. The wide gradation in patient room types, the day and dining facilities, and the integrated units of doctors' office-treatment room-nurses' station and utility room are worth noting.

The remainder of the second floor, insofar as new construction is concerned, is occupied by administrative and related functions. Insofar as Simpson Hall (one of the old buildings) is concerned, its laboratories begin

* Dr. Louis C. Kress, Director of the Institute, prepared the program for the new project.





at this floor and terminate with animal quarters occupying the fifth floor and one half of the sixth floor.

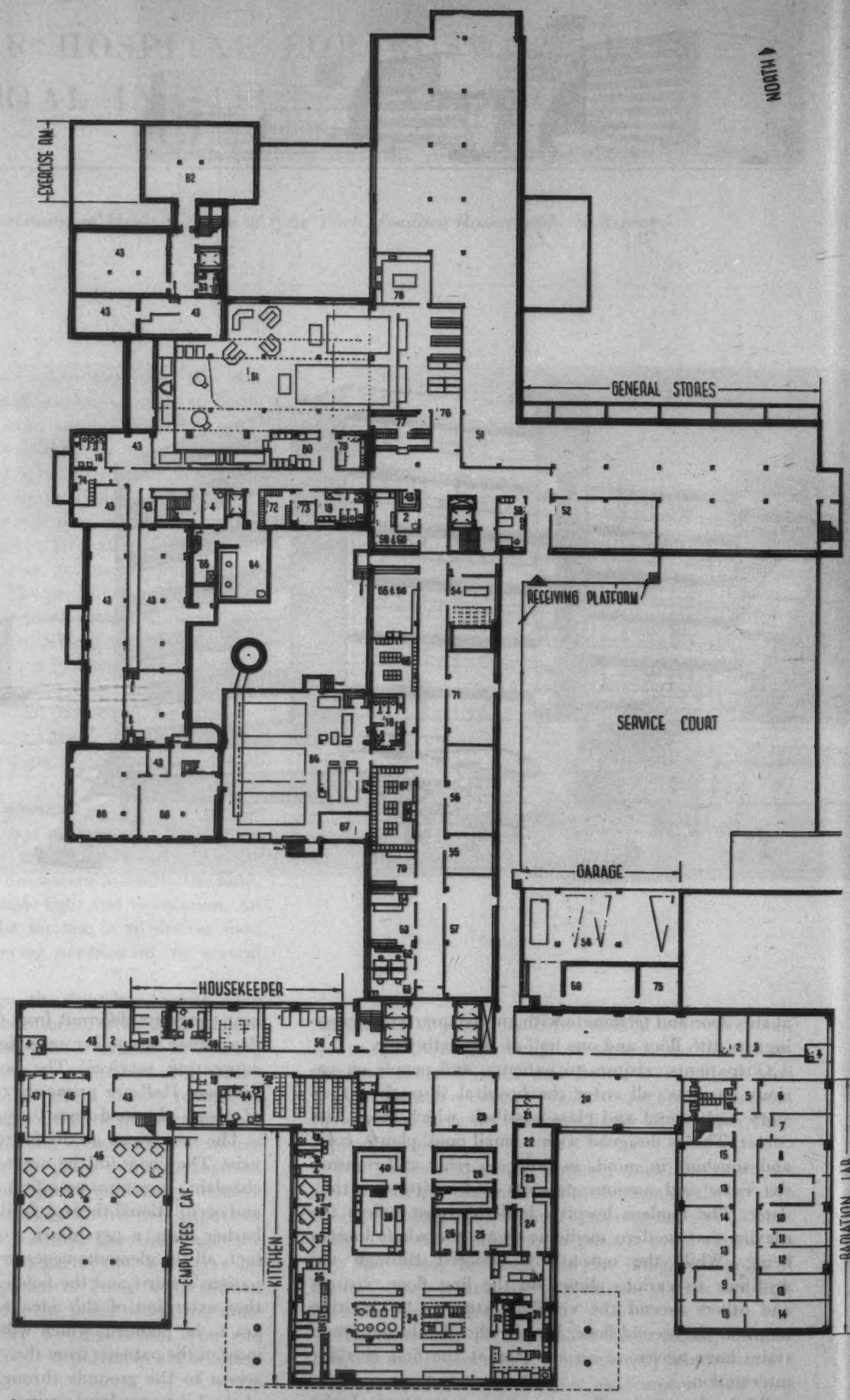
Outpatients, visitors to patients, and people on various business, all enter the hospital through a two-story high metal and glass vestibule which faces Elm Street. This is designed with a small pool, plants, color and sunshine in mind, in order to relax and reassure the tense and anxious patients and visitors as they enter. The modern hospital building must reflect the maxim that modern medicine treats the whole human being. While the outpatients proceed through the vestibule to various clinics on the first floor, visitors and others ascend the vestibule stair to the waiting room on the second floor. People who should not climb stairs have access to an elevator at the first corridor intersection.

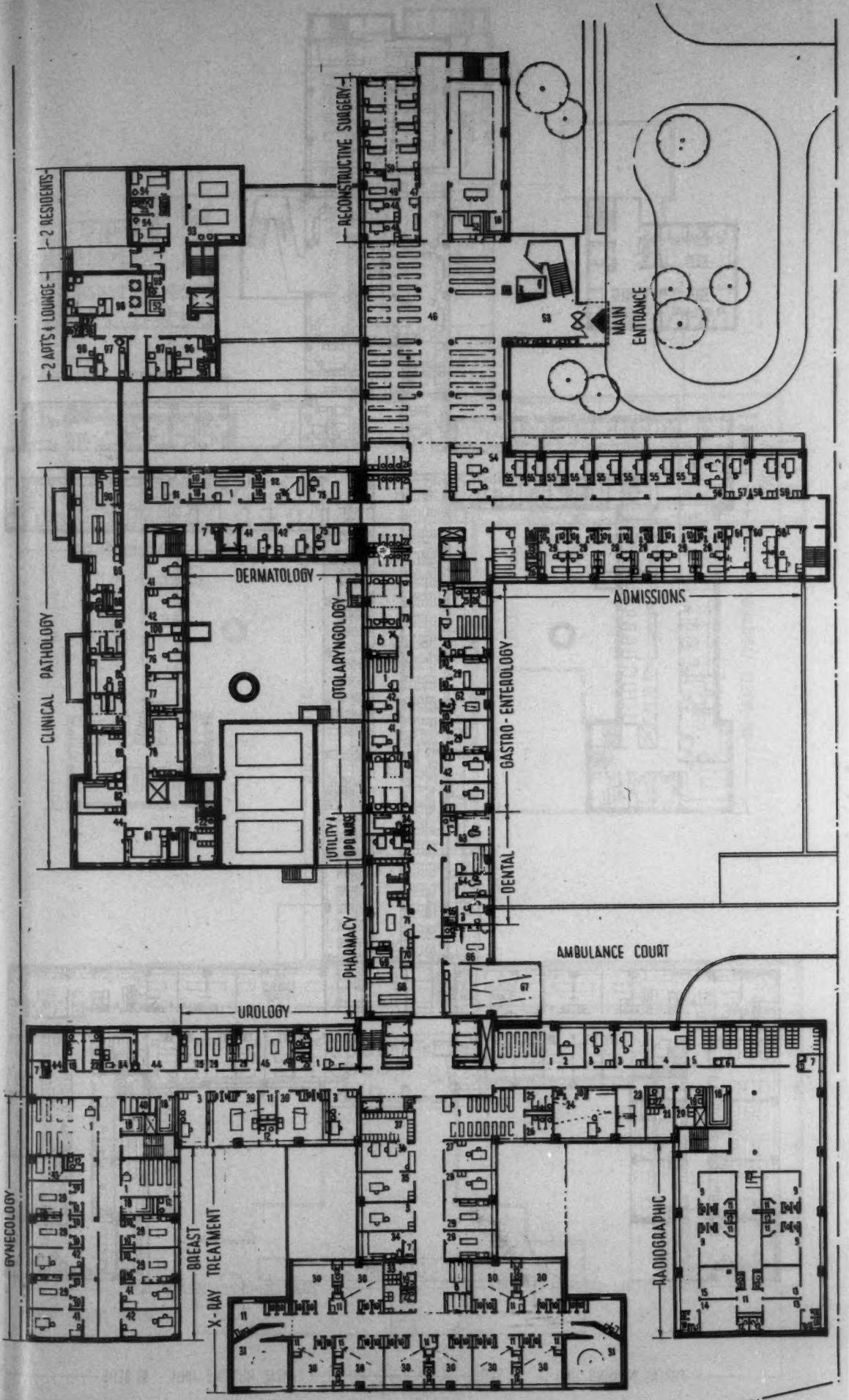
While the nursing floors continue to be typical, the

rear wings are different from floor to floor. At the third floor these wings are occupied by surgery and all its supporting services. The contiguous laboratories in Simpson Hall are primarily concerned with the study of tissues obtained from the operating department.

The rear wings at the fourth floor are in a less grim vein. They contain the auditorium, the chapel, with a chaplain's consultation office, patients' library, physical and occupational therapy facilities, canteen, beauty and barber shop, a psychiatric consultation office, and, in fact, all the elements necessary to the treatment of the patient's spirit and the bolstering of his morale. A further extension of this idea will be found in gardens, yet to be planned, which will be seen and enjoyed by most of the patients from their rooms, and also by direct access to the grounds through two passages provided at the basement level.

- 1 Radiographic Storage
 2 Soiled Linen
 3 Ventilating Machine Room
 4 Janitors' Room
 5 Detection
 6 Radium Records
 7 Radon Receiving
 8 Radon Measure
 9 Wash Room
 10 Radon Pump Room
 11 Radon Solution
 12 Glass Blowing
 13 Isotope Emission
 14 Isotope Measure
 15 Radium Make-Up
 16 Male Employees' Lockers
 — 5
 17 Female Employees' Lockers
 — 3
 18 Male Employees' Toilet
 19 Female Employees' Toilet
 20 Dry Stores
 21 Trash Room
 22 Garbage Refrigerator
 23 Deep Freeze Refrigerator
 24 Meat Refrigerator
 25 Dairy Refrigerator
 26 Chefs' Refrigerator
 27 Dry Refrigerator
 28 General Refrigerator
 29 Commissary
 30 Meat Preparation
 31 Fish Preparation
 32 Ice Cream Making
 33 Bakery
 34 Main Kitchen
 35 Dining Room
 36 Diet Kitchen
 37 Office — Assistant
 38 Office — Dietitian
 39 Vegetable Preparation
 40 Vegetable Refrigerator
 41 Food Carts
 42 Female Employees' Lockers
 — 84
 43 Storage
 44 Female Employees' Lounge
 45 Employees' Cafeteria —
 (290 Seats)
 46 Serving Pantry
 47 Dishwashing
 48 Male Employees' Lounge
 49 Male Employees' Lockers
 — 45
 50 Housekeeper's Office
 51 General Stores
 52 Receiving Stores
 53 Receiving Office
 54 Morgue
 55 Paint Shop
 56 Carpentry Shop
 57 Plumbing Shop
 58 Garage
 59 Mimeograph Room
 60 Mail Room
 61 Office
 62 Drafting Room
 63 Work Room
 64 Store Room
 65 Ground Maintenance
 66 Ground Storage
 67 Office — Chief Engineer
 68 Mail Employees' Lockers —
 35
 69 Machine Room
 70 Electric Shop
 71 Machine Shop
 72 Female Employees' Lockers
 — 26
 73 Female Employees' Lounge
 74 Male Employees' Lockers
 — 5
 75 Electricity & Transformer
 76 Clean Linen
 77 Personnel Linen
 78 Sewing Room
 79 Office
 80 Sorting
 81 Laundry
 82 Exercise Room
 83 Toilet
 84 Incinerator Room
 85 Hoist Room
 86 Boiler Room
 87 Record Storage
 88 Unassigned

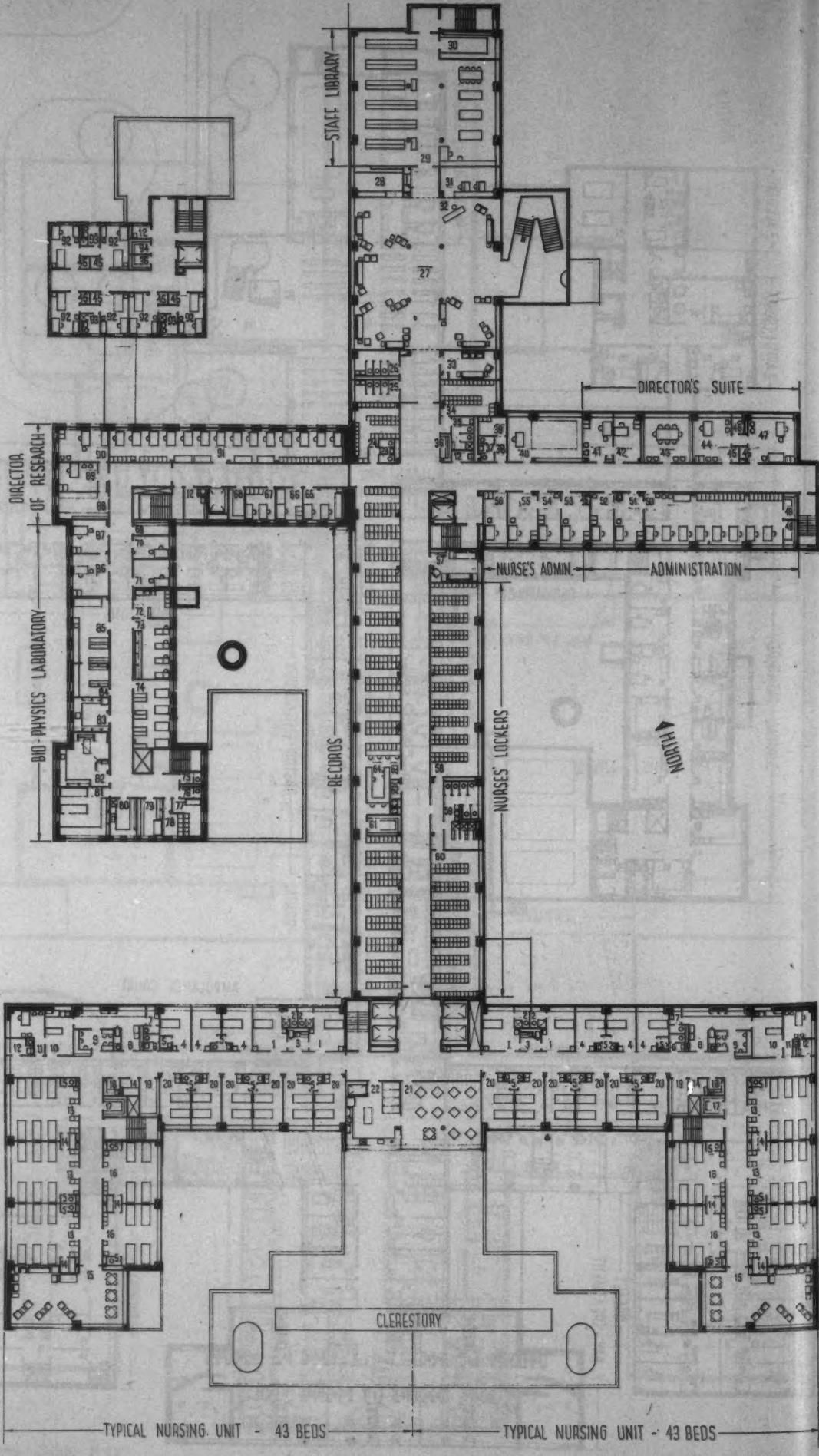




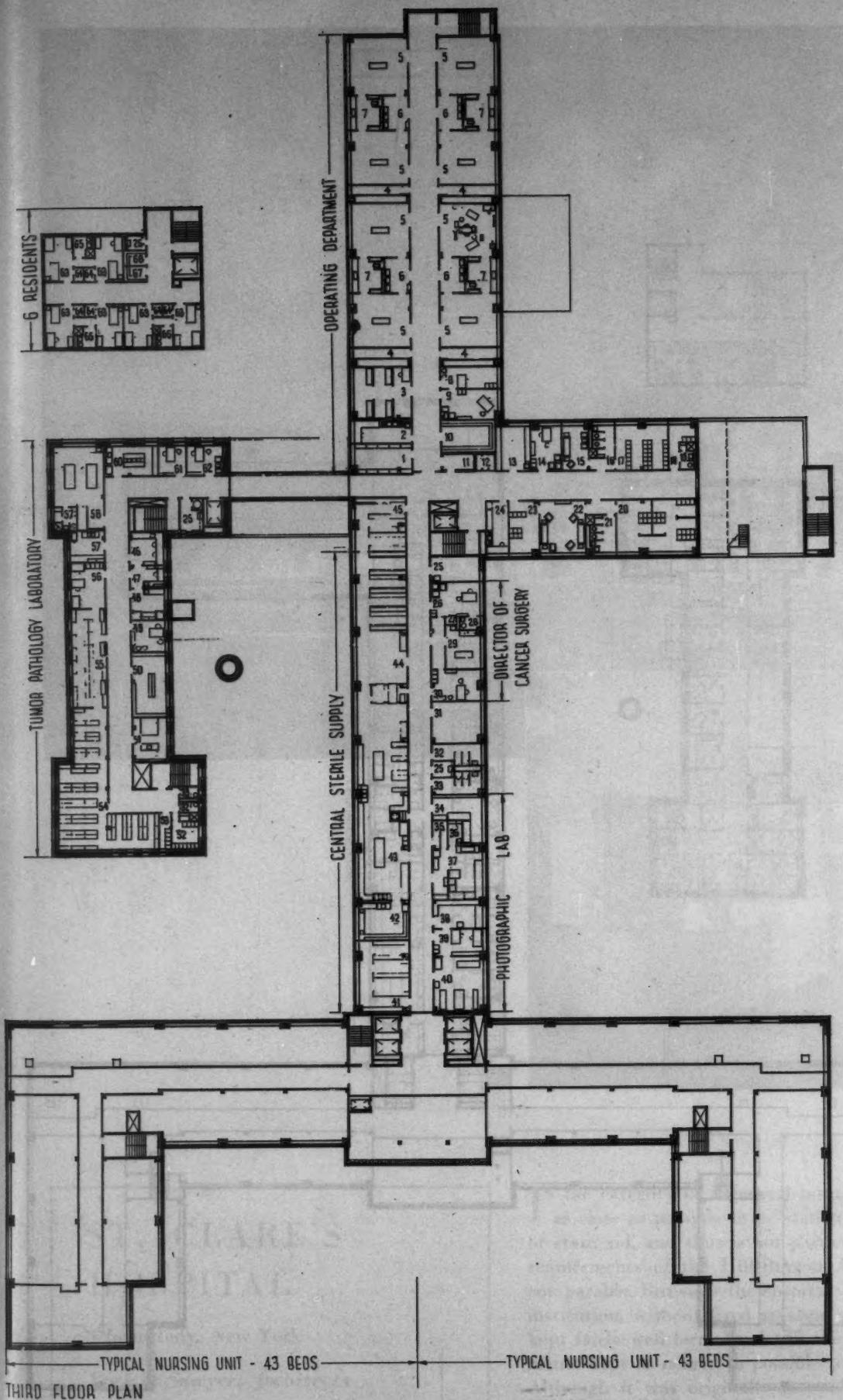
1	Patient Waiting
2	Office — Secretary
3	Office
4	Viewing Room
5	File Room
6	Soiled Linen
7	Janitors' Room
8	Patient & Stretcher Waiting
9	Radiographic Room
10	Dressing Room
11	Control Room
12	Toilet
13	Fluoroscopic Room
14	Gastro-Intestinal
15	Chest Room
16	Dark Room
17	Maze
18	Supply & Storage
19	Male Employees' Toilet
20	Male Employees' Locker
21	Female Employees' Lockers — 3
22	Female Employees' Toilets
23	Rest Room
24	Dispensary Photography
25	Patient Toilet — Male
26	Patient Toilet — Female
27	Office — Department Head
28	Office — Assistant
29	Examining Room
30	X-Ray Treatment Room
31	X-Ray Treatment
32	Female Empl. Lockers
33	Male Employees' Locker
34	Utility Room
35	Office
36	Office — Secretary & Clerk
37	Chart Room
38	Closet
39	Cystoscopic Room
40	Stretchers
41	Office
42	Office
43	Recovery
44	Unassigned
45	Urogram, Examination
46	Lobby & Waiting
47	Secretary & Waiting Office
48	Examination Room
49	Treatment Cubicles — 8
50	Lecture Room — 100 Seats
51	Coat Room
52	Vestibule
53	Control Office
54	Case History Rooms
55	Office — Social Service
56	Office — Admissions M.D.
57	Office — Stenographer
58	Office — Assistant
59	Dictation Room
60	Hematology Room
61	Proctoscopic Room
62	Dental Hygienist Room
63	Operation Room
64	Laboratory
65	Receiving Room
66	Ambulance Enclosure
67	Drug Storage
68	Spirit Storage
69	Narcotic Storage
70	Pharmacy & Dispensing
71	Office — Head Nurse
72	Treatment Cubicles — 4
73	Radium Treatment
74	Treatment Cubicle
75	Office — Bacteriologist
76	Bacteriology Laboratory
77	Preparation Room
78	Female Empl. Lockers
79	Refrigerated Room
80	Serology
81	Blood Bank
82	Blood Processing
83	Blood Taking
84	Hematology
85	B. M. & E. K. G.
86	Specimen Toilet
87	Preparation
88	General Laboratory
89	Washing & Sterilizing
90	Radium Treatment
91	Superficial Therapy
92	Billiard Room
93	Residents' Room
94	Bath Room
95	Bed Room
96	Living Room
97	Lounge
98	Powder Room
99	Incinerator Room
100	

FIRST FLOOR PLAN

- 1 Isolation Room
 2 Bath Room
 3 Sub-Utility Room
 4 Single Room
 5 Patients' Toilet
 6 Male Attendants' Toilet
 7 Nurses' Toilet
 8 Utility Room
 9 Nurses' Station
 10 Treatment Room
 11 Consultation Room
 12 Janitors' Room
 13 Six-Bed Room
 14 Patients' Bath
 15 Solarium
 16 Four-Bed Room
 17 Linen Room
 18 Flower Room
 19 Stretcher & Storage
 20 Two-Bed Room
 21 Dining Room - 44 Seats
 22 Serving Pantry
 23 Employees' Toilet — Female
 24 Female Lockers — 41
 25 Public Toilets — Male
 26 Public Toilets — Female
 27 Lobby & Waiting
 28 Newsstand, etc.
 29 Staff Library
 30 Work Room
 31 Telephone Switchboard
 32 Information
 33 Retiring Room
 34 Male Nurses' Lockers — 35
 35 Male Nurses' Toilet
 36 Storage
 37 Employees' Toilet — Male
 38 Foyer
 39 Male Employees' Lockers — 3
 40 Classroom
 41 Office — Assistant Director
 42 Office — Secretary
 43 Medical Board Room
 44 Office — Secretary & Waiting
 45 Closet
 46 Toilet
 47 Office — Director
 48 Supply Closet
 49 Fireproof Room
 50 Business Office
 51 Office — Admin. Ass't
 52 Office — Secretary
 53 Office — Director of Nurses
 54 Office — Secretary
 55 Office — Assistant Director of Nurses
 56 Office — Educational Dir.
 57 Female Employees' Lounge
 58 Nurses' Lockers — 188
 59 Nurses' Toilet & Bath
 60 Nurses' Lockers — 132
 61 Supply Room
 62 Supply
 63 Record Room
 64 Medical Librarian, etc.
 65 Statistical Machines
 66 Office — Statistician
 67 Office — Recorder
 68 Dictaphone Storage
 69 Storage
 70 Office
 71 Office
 72 Washroom
 73 Isotopes
 74 Electronics Room
 75 Male Employees' Toilet
 76 Female Employees' Toilet
 77 Female Employees' Lockers — 5
 78 Male Employees' Lockers — 5
 79 Ultra-Violet Microscope
 80 Dark Room
 81 Machine Room
 82 Experimental X-Ray
 83 Sedimentation Room
 84 Microscope Room
 85 Electron Microscope
 86 Office — Physicist
 87 Office — Assistant
 88 Special Room
 89 Office — Secretary
 90 Office — Director
 91 General Office
 92 Resident's Room
 93 Bath Room
 94 Linen Room

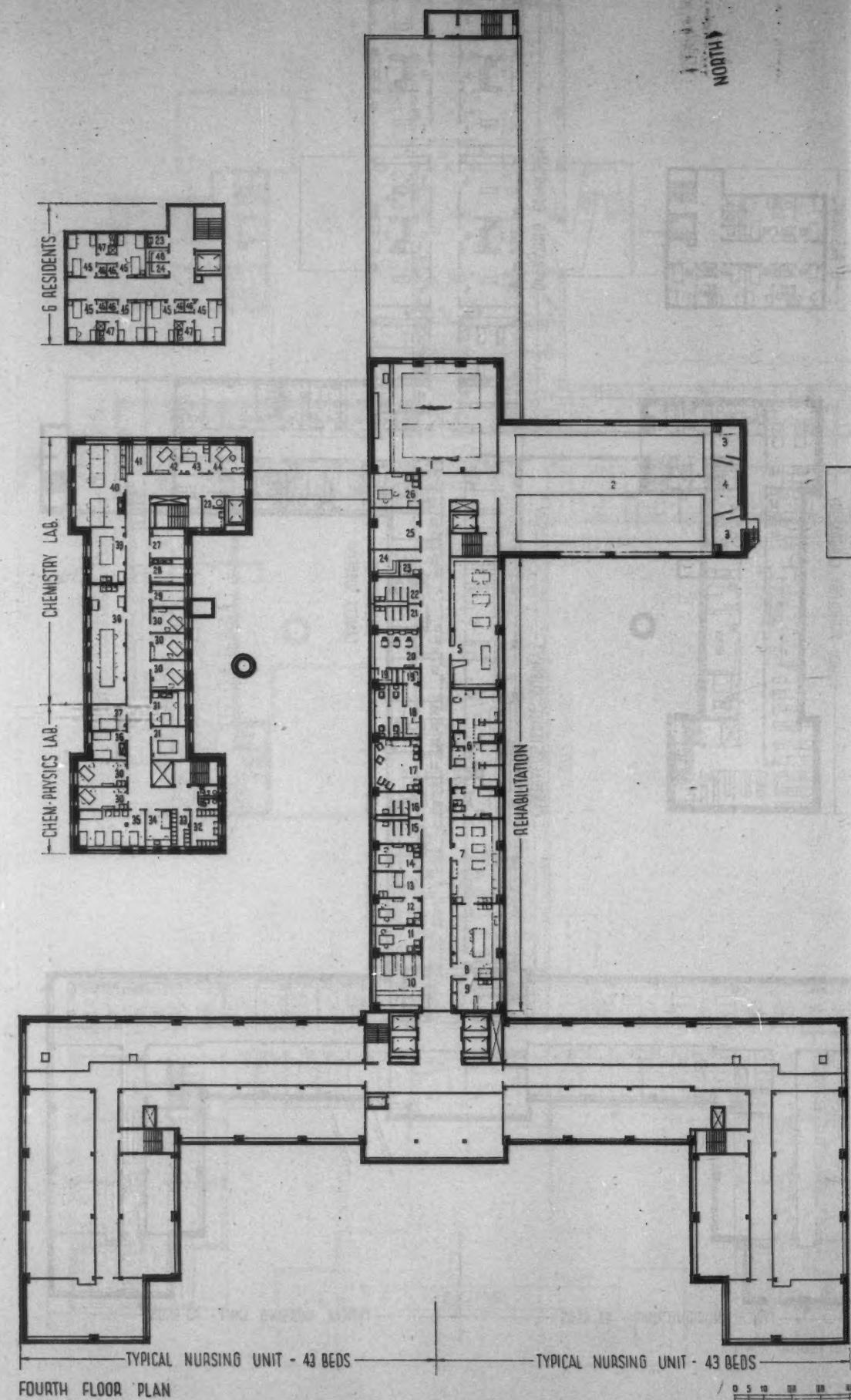


SECOND FLOOR PLAN



- 1 Instrument Storage
- 2 Clean-up
- 3 Anesthesia Induction
- 4 Gallery — 12 Seats
- 5 Operating Room
- 6 Scrub-up Room
- 7 Sub-Sterilizing
- 8 Secretary's Office
- 9 Surgical Supervisor
- 10 Stock Supply
- 11 Radium Receiving
- 12 Stretchers
- 13 Anesthesia Storage
- 14 Chief Anesthetist
- 15 Nurses' Lounge
- 16 Nurses' Toilet
- 17 Nurses' Lockers — 26
- 18 Male Attendants' Lockers — 3
- 19 Male Attendants' Toilet
- 20 Doctors' Lockers — 24
- 21 Doctors' Toilet
- 22 Doctors' Lounge
- 23 Visiting Doctors' Lockers — 10
- 24 Frozen Section Laboratory
- 25 Janitors' Room
- 26 Directors' Office
- 27 Closet
- 28 Toilet
- 29 Examining Room
- 30 Secretary's Office
- 31 Unassigned
- 32 Staff Toilet — Male
- 33 Staff Toilet — Female
- 34 Storage
- 35 Maze
- 36 Chemical Preparation Room
- 37 Dark Room
- 38 Finishing Room
- 39 Office
- 40 Camera Room
- 41 Non-Sterile Stores
- 42 Solution Room
- 43 Work & Receiving Room
- 44 Sterile Stores
- 45 Operating Dept. — Sterile Supply
- 46 Tissue Examining Preparation
- 47 Special Laboratory
- 48 Doctors' Office
- 50 Museum
- 51 Classroom
- 52 Male Lockers — 11
- 53 Female Lockers — 5
- 54 Slides & Records
- 55 Index Card Room
- 56 Secretary's Office
- 57 Washing & Sterilizing
- 58 Autopsy — 2 bodies
- 59 Toilet
- 60 General Laboratory
- 61 Office of Assistant
- 62 Office of Department Head
- 63 Resident's Room
- 64 Closet
- 65 Bath Room
- 66 Linen Closet
- 67 Storage

- 1 Chapel
- 2 Auditorium — 400 Seats
- 3 Anteroom
- 4 Stage
- 5 Patients' Library
- 6 Physical Therapy
- 7 Crafts — Rough
- 8 Crafts — Quiet
- 9 Preparation
- 10 Canteen
- 11 Office — Occupational Therapist
- 12 Office — Director of Rehabilitation
- 13 Office — Secretary
- 14 Office — Psychiatrist
- 15 Employees' Toilet — Male
- 16 Employees' Toilet — Female
- 17 Sedentary Room
- 18 Beauty Parlor
- 19 Storage
- 20 Barber Shop
- 21 Patients' Toilet — Male
- 22 Patients' Toilet — Female
- 23 Janitors' Room
- 24 Storage
- 25 Unassigned
- 26 Chaplain's Office
- 27 Balance Room
- 28 Dark Room
- 29 Refrigerated Room
- 30 Office
- 31 Infra-Red Spectrophotometry
- 32 Female Lockers — 12
- 33 Male Lockers — 12
- 34 Ultra-Centrifuge
- 35 Computing Room
- 36 Tisellus Electrophoresis
- 37 Ultra-Violet Spectrophotometry
- 38 Auxiliary Chem. — Physics Laboratory
- 39 Clinical Laboratory
- 40 Clinical Laboratory
- 41 Storage
- 42 Office of Clinical Chemist
- 43 Office of Secretary
- 44 Office of Principal Bio-Chemist
- 45 Resident's Room
- 46 Closet
- 47 Bath Room
- 48 Linen Closet





Sigurd Fischer Photos



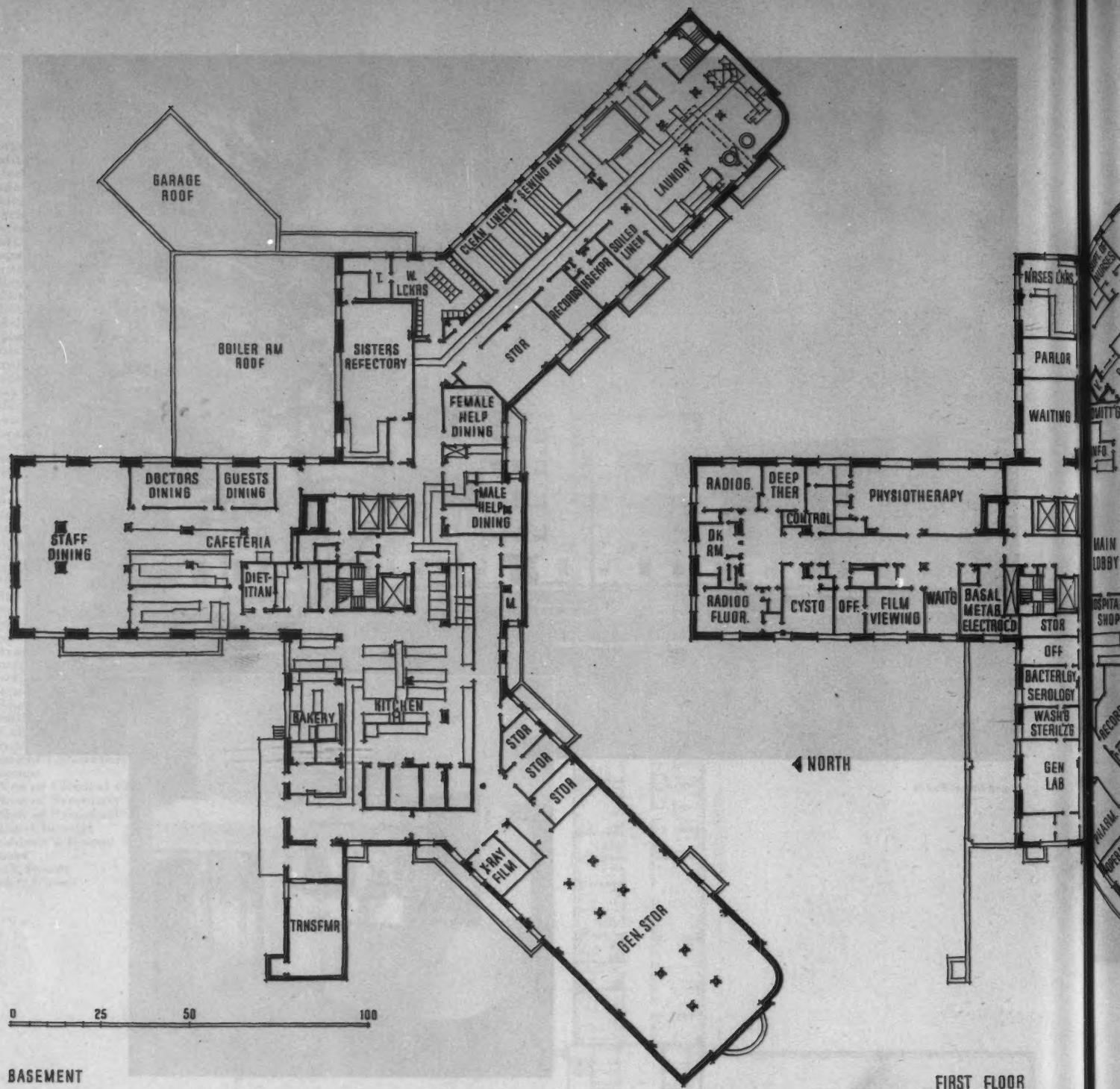
ST. CLARE'S HOSPITAL

Schenectady, New York

York & Sawyer, Architects

IN the category of a general hospital, this one comes about as close as possible to a "standard." It receives no federal or state aid, and thus is not particularly designed within the requirements of the Hill-Burton Act, but is actually quite comparable. But since the hospital was to be a completely new institution, without fixed systems of operation, the plan was kept fairly well formalized and the relations between departments kept as nearly as possible to a standard arrangement. Although it was originally conceived and will be run as a Catholic Hospital, other faiths are represented on the Board, so that it is truly non-sectarian, and strictly typical in every factor from fund-raising to planning.

Planning was left entirely in the hands of the architects,

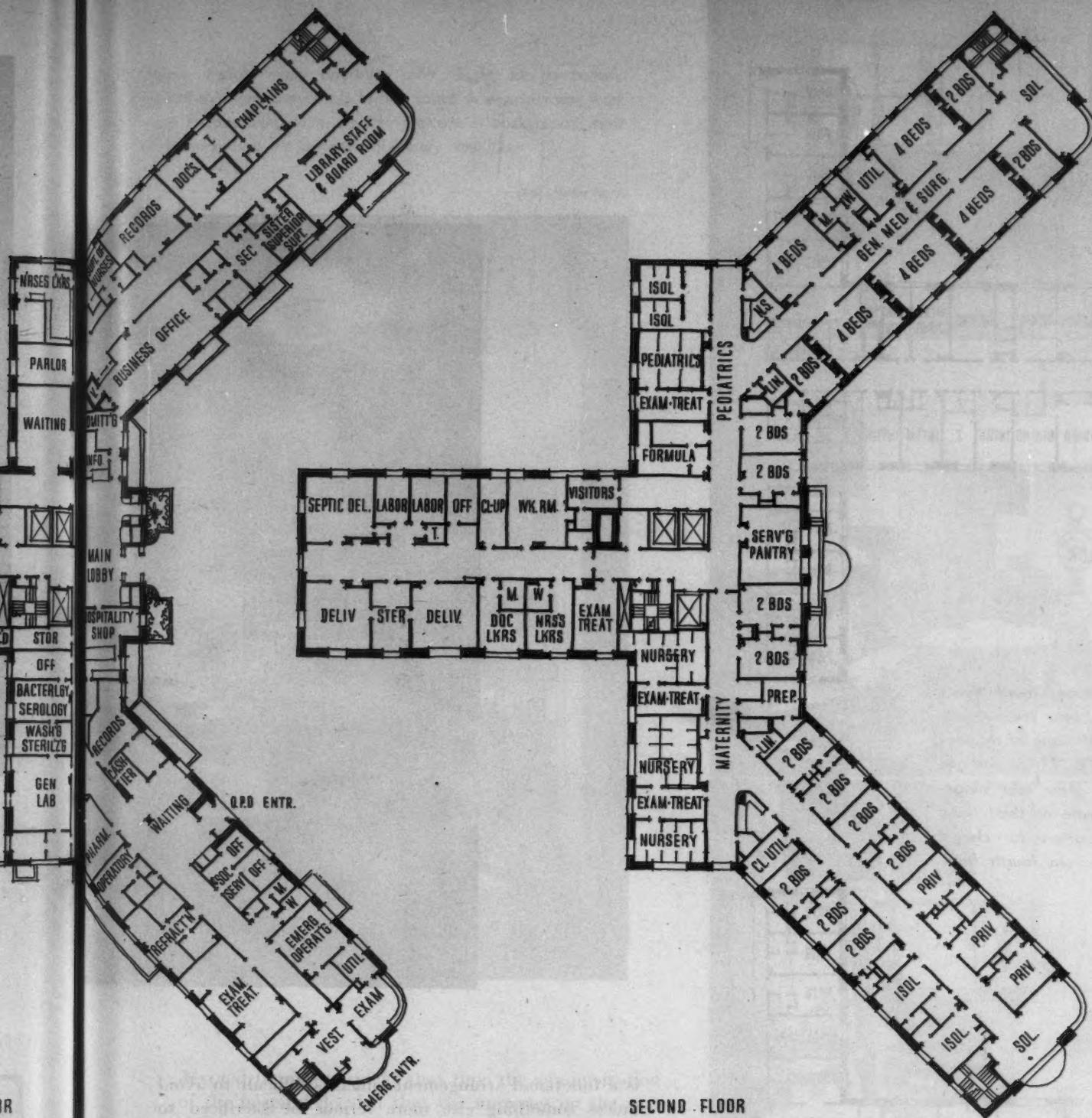


with various Sister superintendents of other hospitals as their consultants. Several doctors and surgeons in the community also met in informal committees with the architects on matters of local practices and needs.

The site consists of about 18 acres, and the building was planned to take advantage of the natural slope for three different entrance levels. The power plant, garages, maintenance shops, together with an undertaker and autopsy suite, all have natural access to the sub-basement level. Since the hospital is to be run entirely by female staff, a men's locker room, together with three small bedrooms have been located on this floor for the

engineering staff who live in, as far removed from the female staff in residence as possible.

The main receiving platform on the basement level is located closely adjacent to the kitchen and to the general hospital storage area, so that delivery of goods can be made on a level and stored without use of elevator or stairs. On the east side of the hospital on this level, where the grade is higher, are located the main dining rooms for staff, with a separate Sisters' dining room, called refectory, closely adjacent to the main elevator lobby, so that both may be reached without getting into the basement corridors. It will be noted



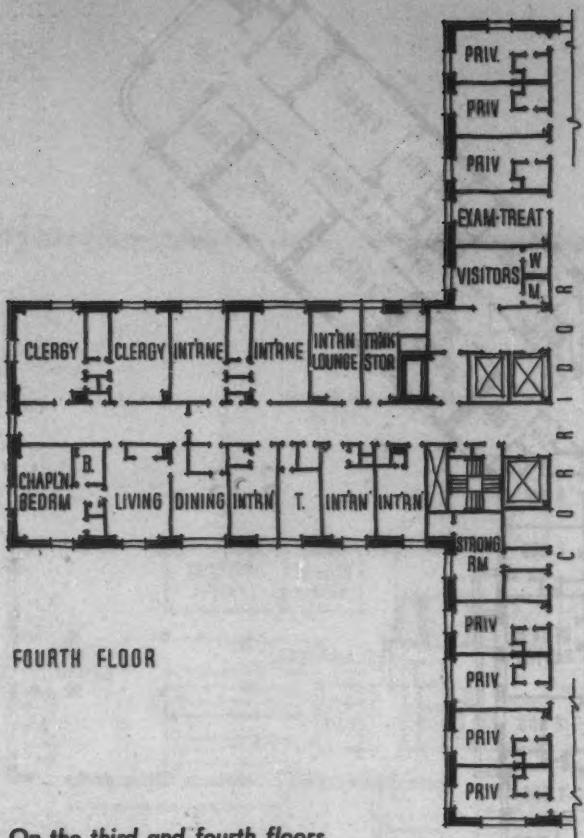
SECOND FLOOR

that the service elevator is so arranged as to have access to the basement service corridors and completely segregated from the passenger elevators, so that easy access can be had to the housekeeper's suite, laundry, and linen exchange, as well as to the female locker rooms. It will also be noted that the main kitchen serves directly into the hospital service elevator for distribution of food to the bed floors by means of heated food cart circulation.

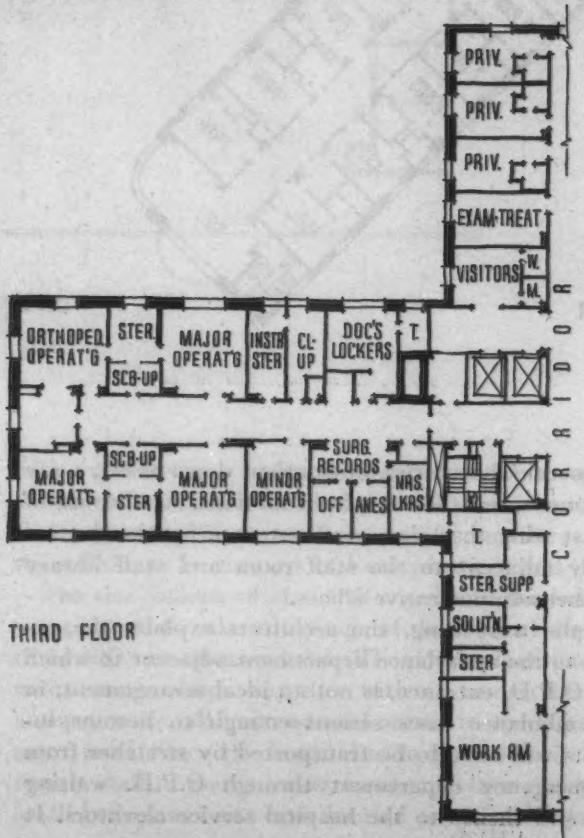
On the first floor, access from the main lobby to the administration quarters and to the main elevator lobby can be had without getting into the corridors serving

the general laboratories, out-patient department, x-ray department, or other hospital functions. At the end of the east wing there is a staff entrance for the doctors directly adjacent to the staff room and staff library and other administrative offices.

On the west wing, the architects explain, the entrance to the ambulance department adjacent to which is the O.P.D. entrance, is not an ideal arrangement, in that ambulance cases serious enough to become inpatients will have to be transported by stretcher from the emergency department through O.P.D. waiting room, and thence to the hospital service elevators. It



On the third and fourth floors the nursing units are virtually identical with those of the second floor (p. 111); portions here given show rear wings: operating suite on third floor (below), quarters for clergy and internes on fourth floor



is a functional arrangement which is difficult to avoid unless something else more serious be sacrificed to obtain another grade entrance, which in this case was impossible.

It will be noted that the location of the O.P.D. in close proximity to the general laboratories, and x-ray department, is good; it will eliminate the necessity for ambulatory out-patients to become involved in the circulation of the general hospital.

The second floor consists of maternity division, together with the obstetrical suite, and a small pediatrics section. Originally this entire floor was to be devoted to maternity cases, and all of the beds on the floor were to be so designated. It was later decided that funds would not be available for completion of one entire floor, the fourth in the building, and that the reduction of beds necessary, because of this cut-back, would eliminate the necessity or desirability for an entire floor



Below: typical major operation room. Right, top to bottom, typical solarium, convertible to bed space in emergencies; work room for operating suite, sterilizing alcove in background; view of nursery; and the general laboratory, first floor

Sigurd Fischer Photos



devoted to maternity. At that time the administration of the hospital decided that the nurseries on the east side of the main corridor on this floor should be devoted to infant pediatrics, with the partition work arranged substantially as needed for infant newborn nurseries, so that if and when the entire floor be turned back to maternity, these needed nurseries could be reinstated. As the plans are published, the pediatrics department is therefore a functional makeshift. Discussions are now under way for returning this entire floor to maternity and redisposing the infant pediatric spaces back to infant newborn bassinets. Pediatrics in this latter case will be relocated on the fourth floor in a segregated wing, which is of course the proper way.

The total construction cost of the building is \$2,788,-112, which, together with the cost of fees, supervision, etc. results in a cost per cubic foot of \$1.83, inclusive of fees but without the cost of movable equipment.

TUBERCULOSIS HOSPITAL Decatur, Alabama

Charles H. McCauley, Architect; Whitten, Snook and Adams, Associated Architects

THE more enlightened concept of hospital care is here illustrated in a specialized type of hospital for the care of T.B. patients. This one points up the current idea that a hospital for long-time care has even more reason for close attention to psychological factors than has a general hospital.

So this one puts its patients in a quiet country location. It takes them into pleasant, attractive quarters. It offers not only good medical care but also things like occupational therapy and psychological and rehabilitation treatment. And, very importantly, it rejects the large ward in favor of a three-bed unit. There is a large out-patient department also.

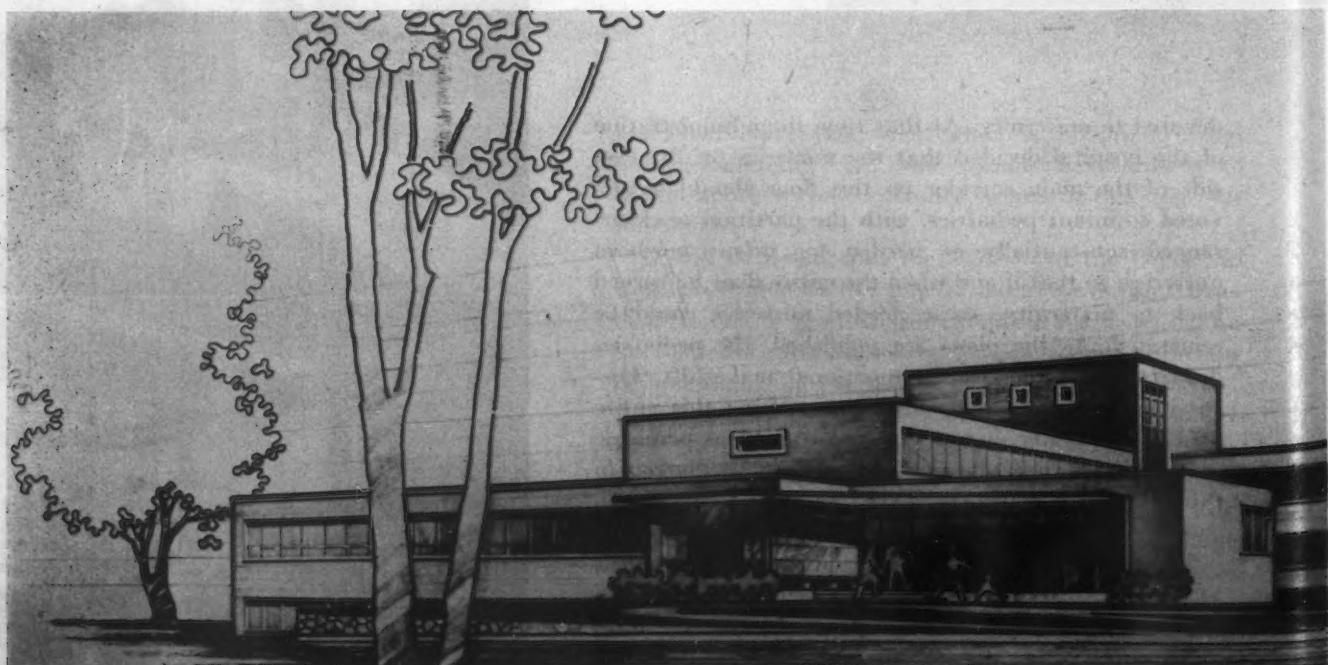
In general the various elements follow closely the suggestions of the U. S. Public Health Service. Nursing units have the offset corridor with most of the patient

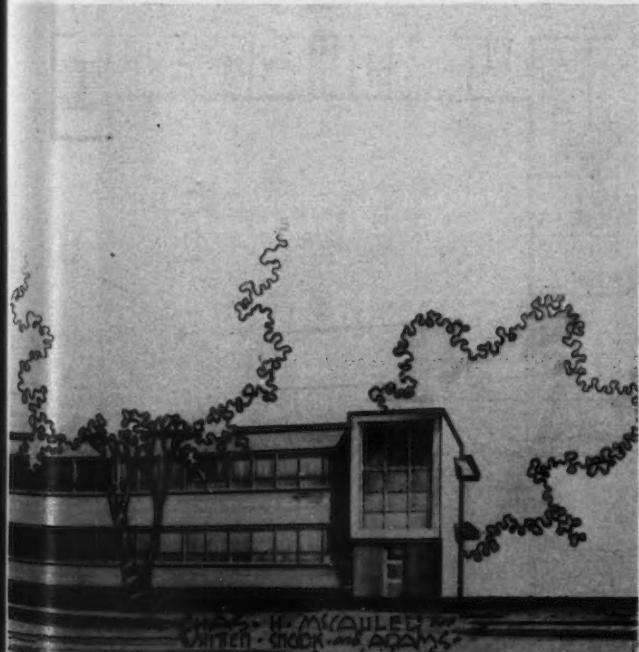
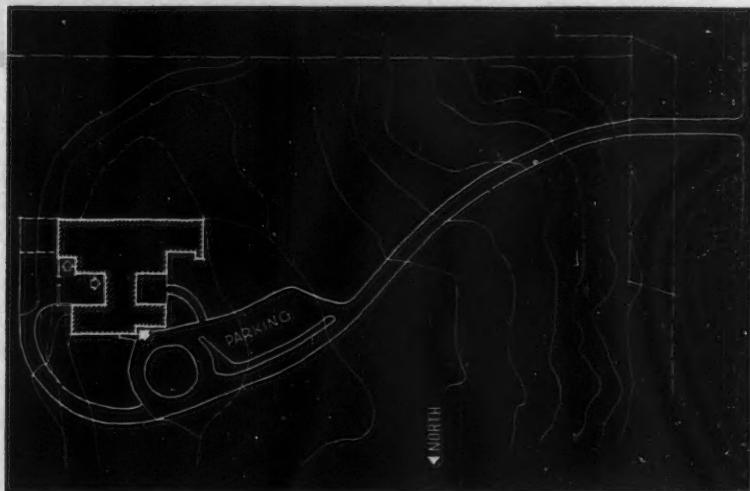
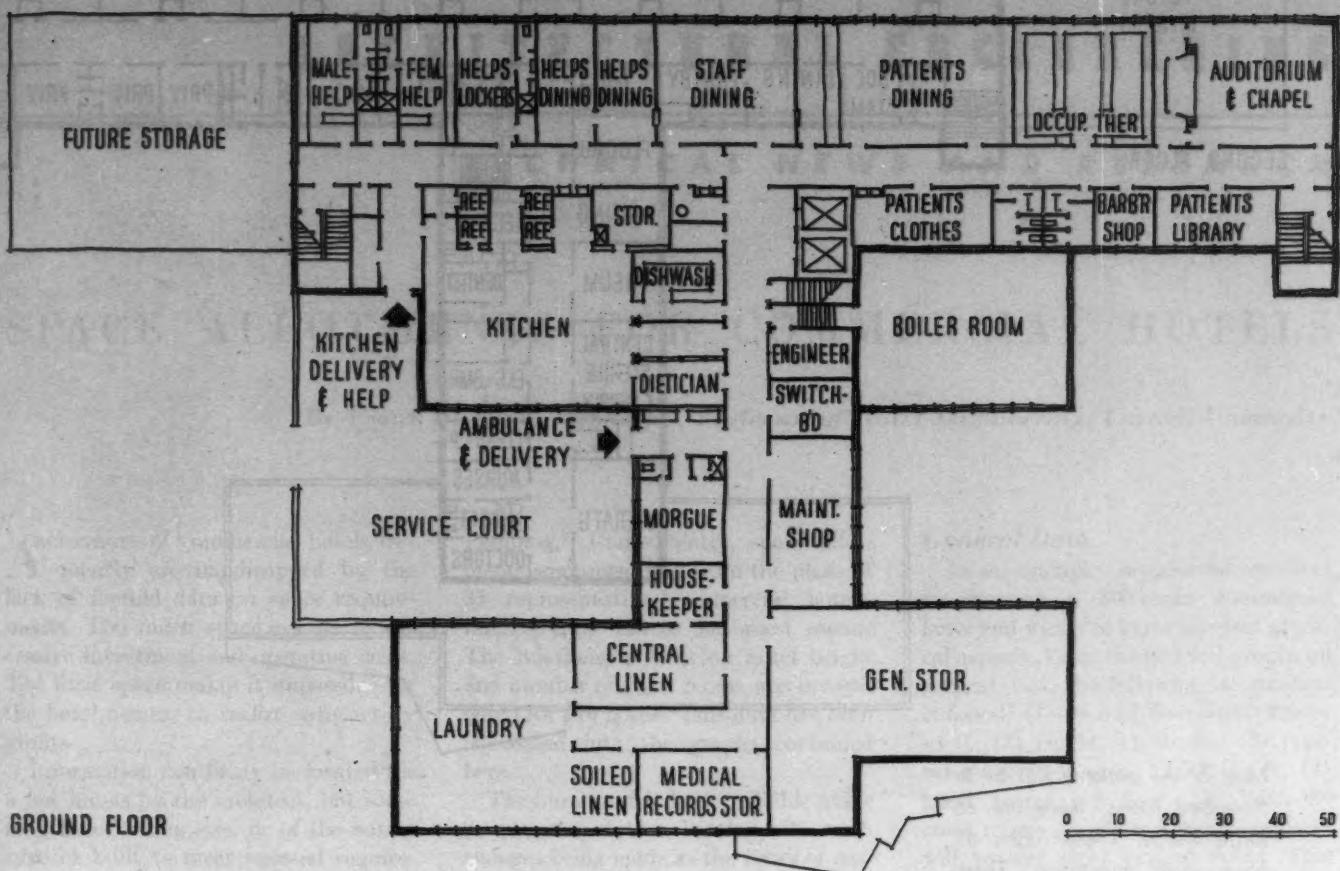
rooms facing south and service rooms on the north.

The three-bed room is an innovation; the three beds are aligned perpendicular to the wall. The lavatory is in the bedroom for the use of the patient, nurse and doctor. Each patient has his own clothes closet in the room. The water closet, with bedpan washing attachment and dental basin, is in an interconnecting location between rooms. Oral hygiene of the semi-ambulant patient would be permitted only at the dental basin.

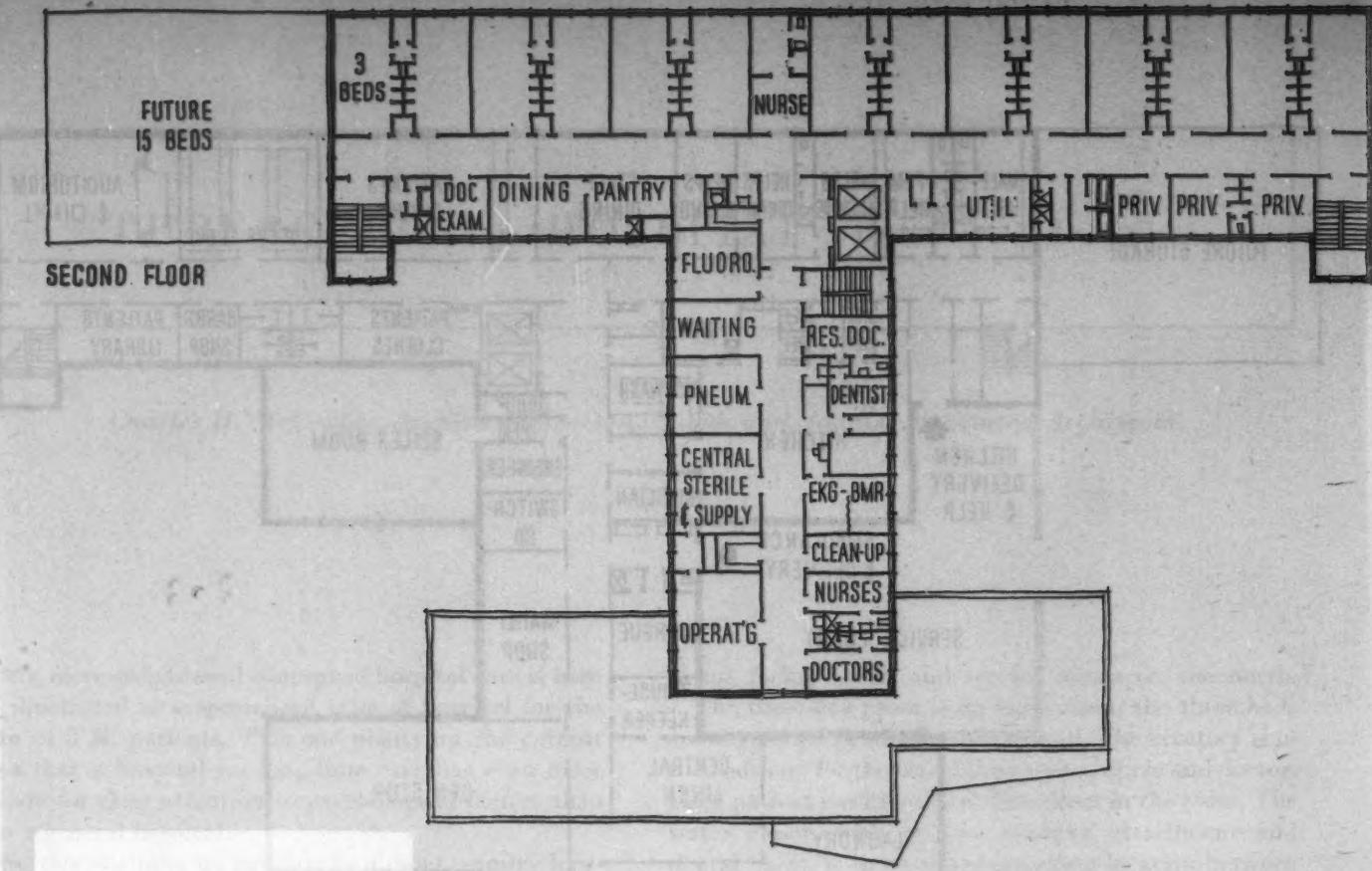
The building is to have concrete frame, concrete floors with tile filler, brick exterior with terra cotta back-up and limestone trim. Interior partitions will be tile, plaster and glazed tile finish. Floors will be covered with rubber tile, ceilings with acoustical tile. Heating will be steam; surgical and medical unit air conditioned.

R. H. Adams Del.

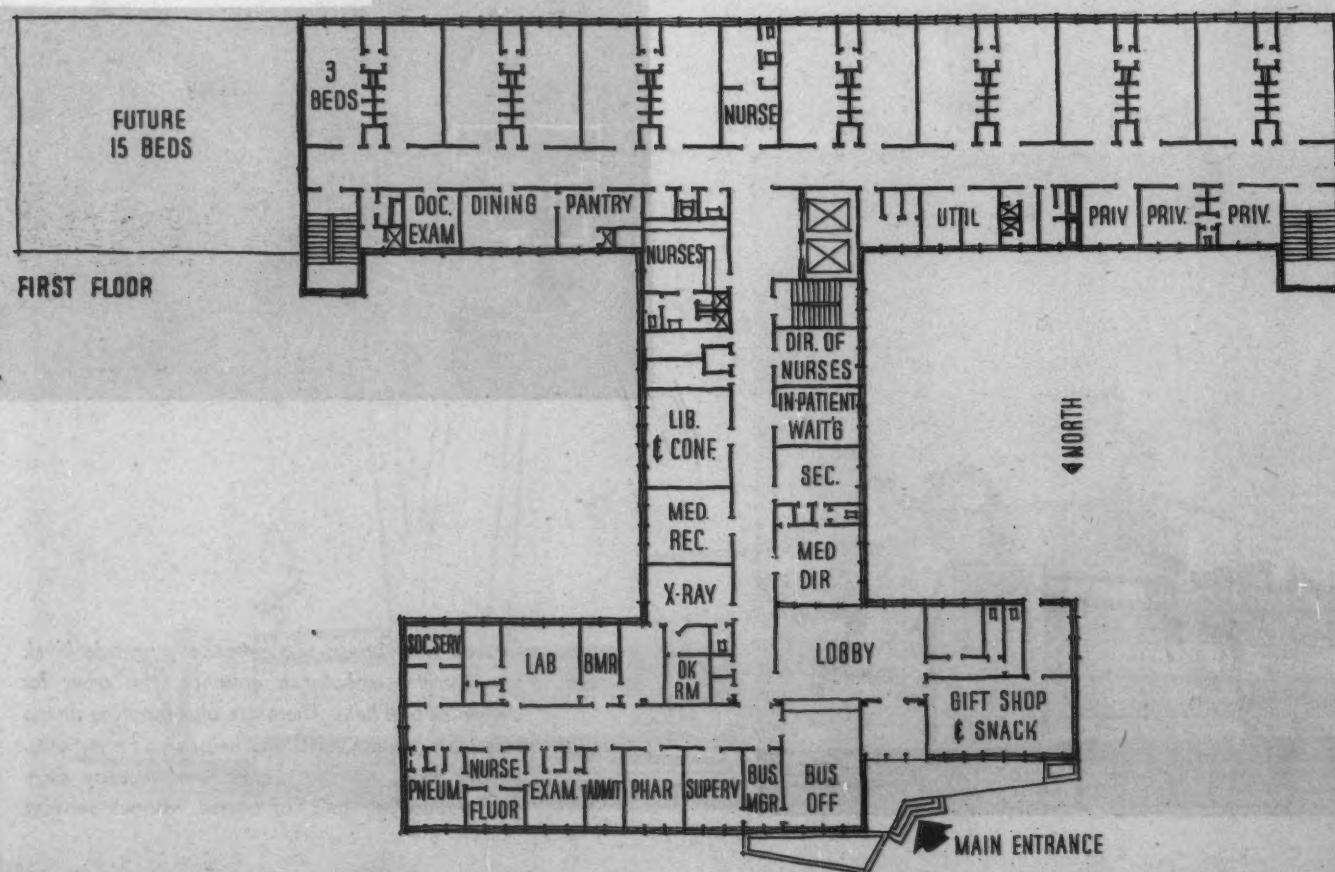




Ground floor brings two entrances at grade level, one for the ambulance entrance, the other for deliveries and help. There are also separate dining rooms for patients, staff and help; also for patients, barber shop, library, occupational therapy room and auditorium; and, of course, various services



Most of the patients will be in three-bed rooms; there are no large wards. These rooms all have south orientation. There are a relatively small number of private rooms, these taking less desirable outlook. Normally the two end units would be used as day rooms for patients



ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

SPACE ALLOTMENTS FOR COMMERCIAL HOTELS

By Frank Harrison Randolph, Professor of Hotel Engineering, Cornell University

ARCHITECTS of commercial hotels frequently are handicapped by the lack of factual data on space requirements. Too much space results in excessive investment and operating costs. Too little space makes it impossible for the hotel owners to realize satisfactory profits.

Information can likely be located for a few hotels by the architect, but some may be of wrong size, or of the wrong type or built to meet unusual requirements. The remaining data is apt to be inadequate. This was found to be the case in the writer's class in "Hotel

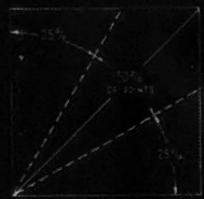
Planning." Consequently, space allotments were measured from the plans of 33 representative commercial hotels, ranging from 125 to 500 guest rooms. The relationship between hotel height and number of guest rooms was investigated for 110 hotels. This data has been translated into the graphs contained here.

They are intended as a reliable guide in planning future hotels, with such changes being made as the times or customs may require, but not going too far from long established values without adequate reason.

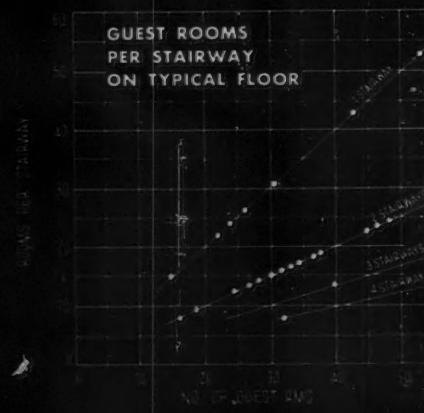
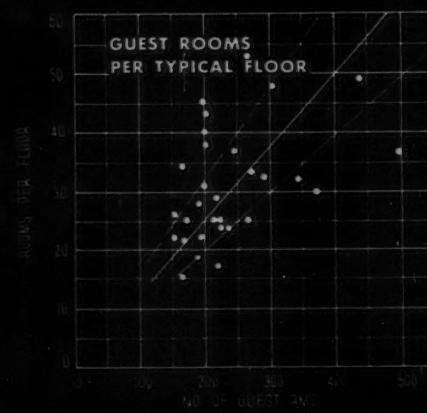
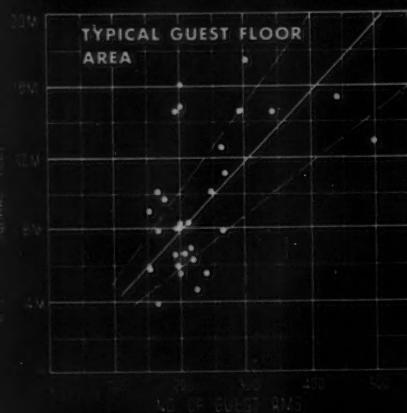
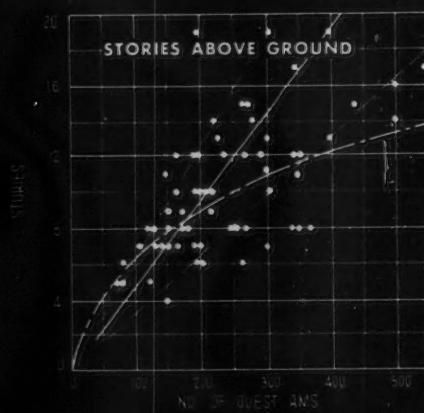
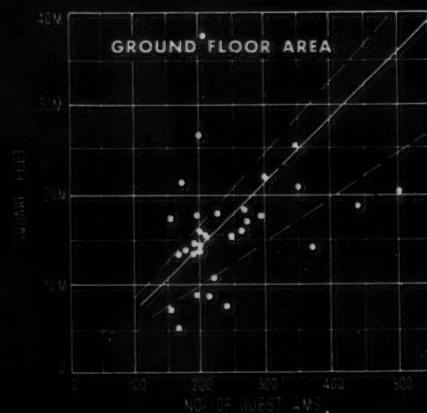
General Data

As an example, suppose an architect is planning a 300-room commercial hotel and wants to know its chief physical aspects. From the first few graphs on general data, the following information is found: (1) ground floor area, 22,000 sq ft; (2) height, 11 stories; (3) typical guest floor area, 12,000 sq ft; (4) guest rooms per floor, 38. With 38 guest rooms per floor, a 300-room hotel will require eight typical floors. This leaves three stories for the lobby floor, mezzanine and possibly a ground floor devoted to stores or a service floor.

GENERAL DATA

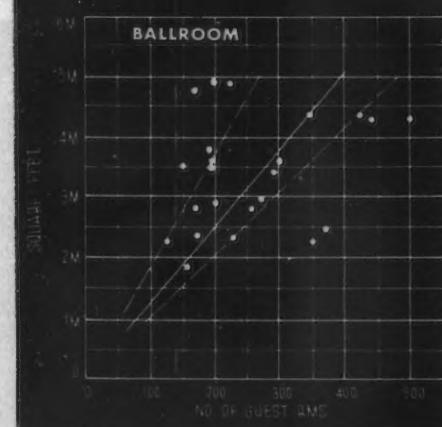
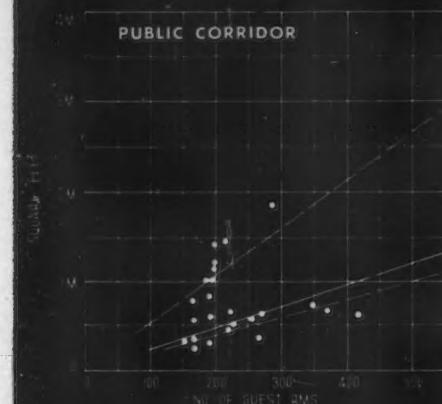
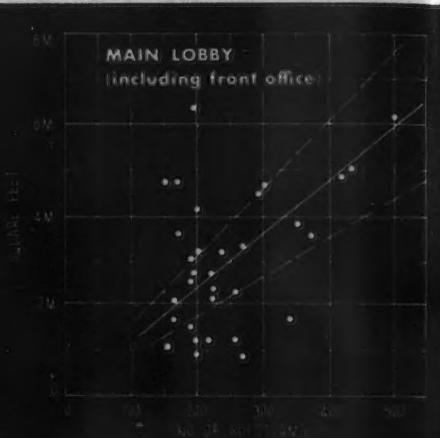
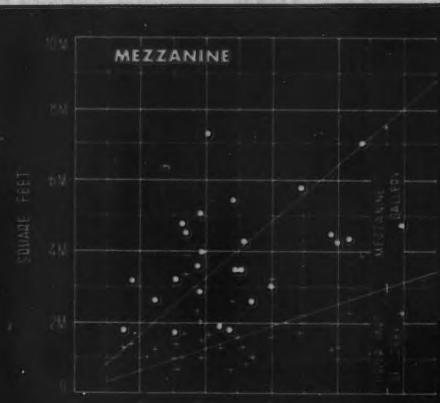
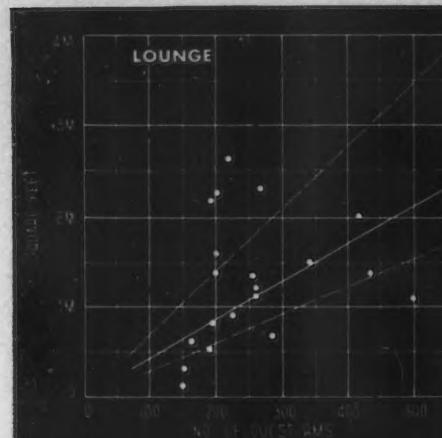


For explanation of derivation and use of graphs see next page



ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH



EXPLANATION OF DERIVATION AND

To convert the mass of data accumulated from the hotel plans investigated to a clear and usable form, each space or other factor was put on a separate chart, with the number of guest rooms on the base line. Then a point was plotted for the value obtained for each hotel. The result was a chart that was peppered with points, often rather widely scattered. Seldom did the arrangement of the points encourage one to attempt to draw a line through them.

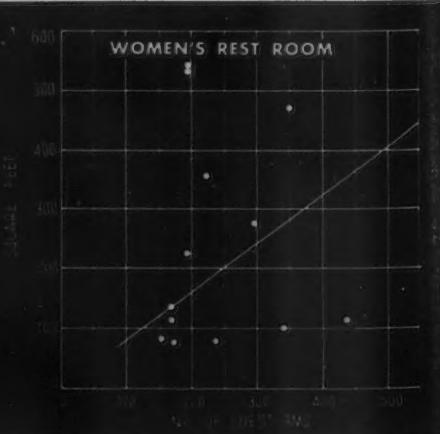
Through the field of points on the graphs, a solid diagonal line was drawn to show the median trend. This line was started at the lower left corner, at the "zero-zero" value. The line was located by trial so that half the points were above it and half below it. On graphs that had sufficient points

to warrant, two broken diagonal lines were drawn in addition. The upper broken diagonal has one-fourth of the total points above it and the lower broken diagonal has one-fourth of the total points below it. Thus the area between the two broken diagonals contains half the points and may be considered as the usual range encountered in practice.

Each trend line has been drawn straight because the data points were insufficient to justify the location of a smooth curve, with the exception of the Stories Above Ground graph.

The relationship between stories above ground and number of guest rooms was investigated for 110 hotels, including a number of 1000 rooms and over (the graph shows only that portion of the curve up to 550 rooms).

PUBLIC SPACE



Each of these foregoing values is an approximation which may need revision as plans develop. It is evident, however, that expectations can be determined at a glance without requiring an assortment of assumptions, tedious calculations or extensive experience with hotel structures.

The graph on stairways shows that most of the hotels investigated have two stairways through guest floors. Usual practice is to have not more than 30 rooms per stairway on the typical guest floor. The average hotel has about 16 or 18 guest rooms per stairway.

USE OF GRAPHS

The plotted points were scattered widely, but a curve of parabolic form drawn through them showed the trend satisfactorily.

Presenting the data in the form of these graphs offers several advantages. The reader immediately sees about how many cases are represented. The relative divergence of the data is obvious. An exceptional case or two has no great influence on the trend line, in contrast to taking an average value which may be influenced considerably by one abnormally high or low figure.

These studies are not presented as the final word on space allotments. They indicate a good method which may serve as a basis for more extensive work and probably slight revisions in the trend lines.

Public Space

The Main Lobby graph indicates 12 sq ft of lobby area per guest room. The lounge was indicated for 65 per cent of the hotels investigated, with about 4 sq ft being provided per guest room. Many hotels use a part of the lobby or mezzanine gallery as the lounge, although it is not specifically designated as such on the plans.

The mezzanine was shown for 70 per cent of the hotels. For each hotel on this graph, two points were plotted — a dot for the mezzanine area and a cross for the upper part of the lobby or "well hole." In several cases these points were connected by a dotted line to emphasize this fact. For example the 345 room hotel had a gross area of 5800 sq ft for the mezzanine and 1800 sq ft for the well hole. The gallery area is the difference between these values or 4000 sq ft.

The ballroom was shown in 70 per cent of the designs studied. From 10 to 18 sq ft of ballroom area per guest room is usual, with 12½ sq ft being the median value.

Ballroom storage (graph not included) is often omitted to the inconvenience of the management in storing tables and chairs. Where provided, it is about 10 per cent of the ballroom area or a little more.

A ballroom serving pantry (graph not included) is needed for banquet service unless the main kitchen is adjacent to the ballroom. The pantry is typically 22 per cent of the ballroom or banquet room area.

In providing public toilet facilities for guests, about 1 sq ft of men's toilet area is furnished per guest room. About

1½ to 2 sq ft per guest room is allotted for the corresponding facilities for women, half of this area being used for the women's rest room and half for the women's toilets.

Concession and Sub-Rental Space

The barber shop is allotted 2½ sq ft per guest room. The valet shop (graph not included) is customarily found in the larger hotels — a little over 1 sq ft per guest room. Often it is not specifically provided in the plans, and the management is forced to convert some service area to this use.

Rented stores are important because the income from them is required to carry the premium cost of a choice location for the commercial hotel. Typically, 20 sq ft of rented store area is provided per guest room. About 2½ stores are provided per 100 guest rooms. The rental value of a store is enhanced considerably if the store is provided with a low rental value storage area, often in the basement.

Food and Beverage Space

Most hotels have a main dining room, with 9 sq ft being provided per guest room. Some hotels have only a coffee shop or its equivalent with 7 sq ft per guest room as the typical value. Many hotels have both facilities. The trend is to minimize the main dining room in present day practice because of the difficulty in operating it profitably.

In planning private dining rooms, the architect must become acquainted with the local demand. The graphs on these are valuable, however, in showing normal expectations.

CONCESSION AND SUB-RENTAL SPACE



ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

Data plotted for the barroom were obtained by correspondence with about two dozen hotels to ascertain conditions as of 1949.

Once the scope of the food business is determined, the ratio of the several food service areas, one to another, becomes significant. Main dining rooms usually are about 80 per cent of the main kitchen. Only one-fourth of the main dining rooms exceeded 118 per cent of the kitchen while only one-fourth are less than 69 per cent of the kitchen.

When an auxiliary kitchen is provided, the coffee shop is nearly four times this area.

General Service Space

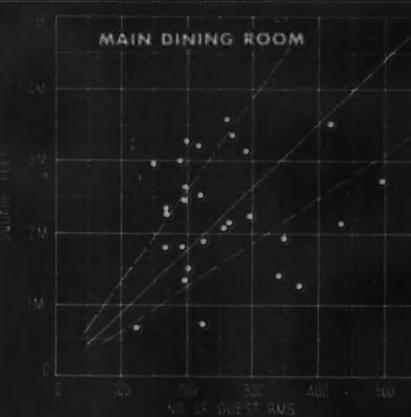
General service space includes the working quarters of the hotel and the administration offices, exclusive of food beverage space. The wide variations in area for the manager's office are not surprising. Possibly the larger offices were due to the insistence of the manager or the generosity of the architect. This office for one individual is typically 150 sq ft, regardless of hotel size. The accounting office can be expected to require more personnel in the larger and more complex hotels than in the smaller ones. It is often omitted from the plans, requiring the management to sacrifice one or two guest rooms for the purpose.

The central linens room was shown on only half the plans studied. Having a central point from which linens are distributed is quite essential in maintaining proper control and in reducing delays.

A laundry is customarily installed in larger hotels but not in small ones. Half of the 200-room hotels have their own laundry, according to a survey by the American Hotel Association. Around 5 or 6 sq ft per guest room includes allowance for restaurant linen. For extensive guest laundry work, 7 or 8 sq ft may be needed.

The engineering and maintenance spaces are neglected too often. The following figures commonly apply (per guest room): 6.6 sq ft of boiler room, 1.7 sq ft of fuel storage, (graphs not included for remaining) 1.6 sq ft of carpenter-and-furniture workshop, 3.2 sq ft of machinery (and refrigeration) space, 2.2 sq ft of furniture and trunk storage space, and 1.6 sq ft of basement fan room area. For the last three areas mentioned, actual space used often exceeded that indicated on plans.

MAIN DINING ROOM



COFFEE SHOP
OR CAFETERIA



FOOD AND

BEVERAGE SPACE

MAIN KITCHEN



GENERAL

SERVICE

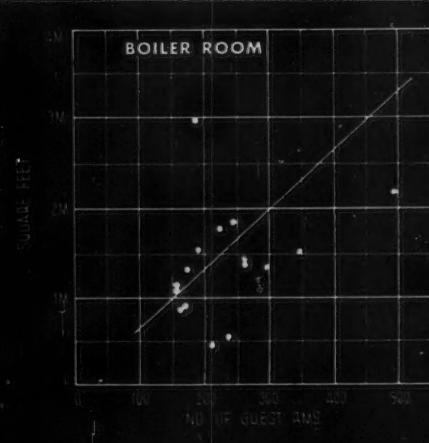
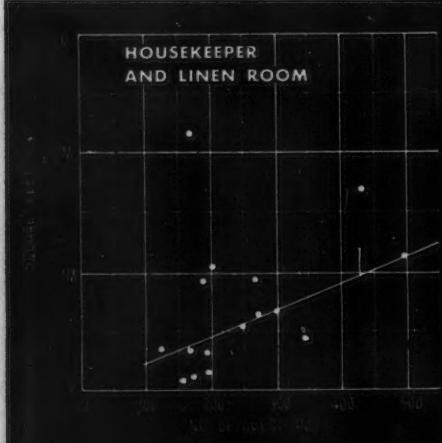
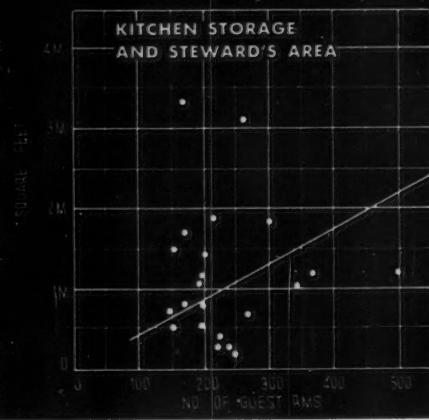
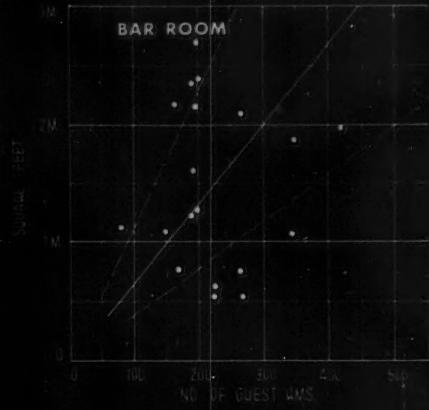
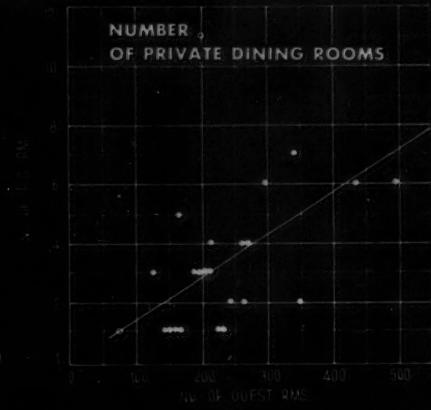
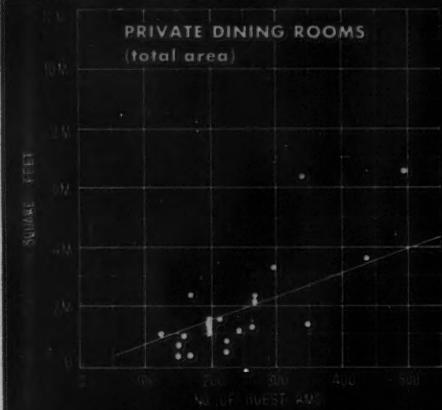
SPACE

MANAGER'S OFFICE



ACCOUNTING OFFICE







Photos: above, The Seattle Times; opposite page, the author

By Harlan H. Edwards, Consulting Engineer, Seattle, Washington

A ROOF DECK THE WEATHER WON'T BOTHER

Most roofs are readily accessible if repairs are required. Not so with bituminous roofs laid over concrete slabs and covered with rigid walking decks or roof gardens. Under these surfaces, which may be either concrete, clay tile or other rigid permanent materials, the waterproofing membrane is not only inaccessible but is subject to rupture and ruin if the original installation is not correctly done.

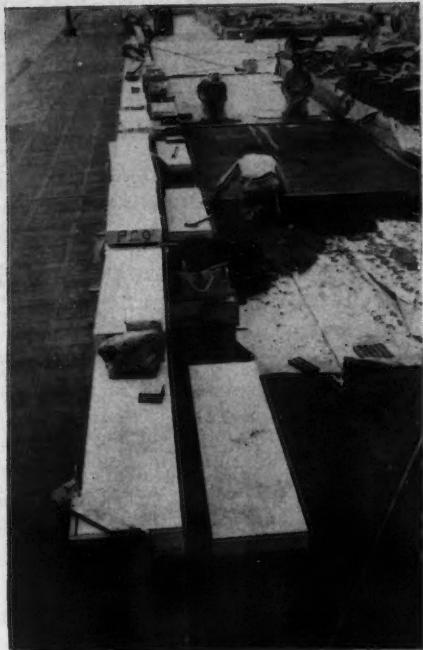
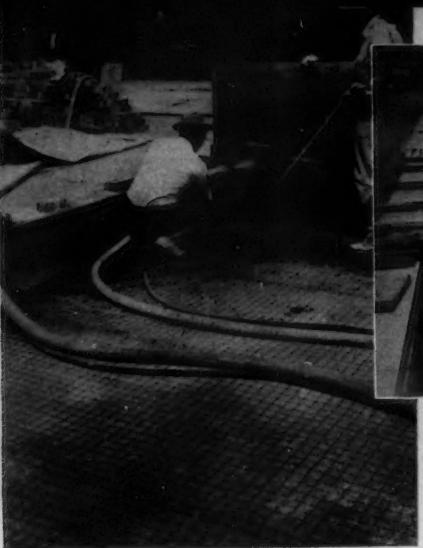
The effect of large temperature changes in expanding and contracting the overlying slab in comparison with the structural slab below is not completely considered in many cases. Costly experience has demonstrated that materials in the surface slabs often bond themselves into the flood-coated membrane below, which in turn has been bonded to the structural slab on which it lies. In consequence, the moving top

slab either carries the membrane with it in places, or drags on it — in either case rupturing it. Rainwater penetrates the joints as they open in cooler, rainy times, and soon a leak shows up in a room below, sometimes far distant from the original point of water penetration at the top surface.

To locate the point of rupture is impossible. Occasionally it is possible to force a cold liquid bitumen onto the membrane below, but the repair is only temporary. Continued movement and the low-temperature hardening of the asphalt or tar opens the cracks, and greater leaks appear. The only remedy is to remove all and start over again, better.

To prevent such trouble in the new stack addition to the Seattle Public Library, a roof deck developed according to the following plan was used. In such

a roof, it is necessary to (1) isolate the membrane from the slabs both below and above and (2) strengthen the membrane so that movements of either the top or bottom slab or of the membrane will cause only harmless slippage on surfaces prepared to receive it. First, no bond may exist between the structural slab and the membrane. To guarantee this, the slab should be smooth-troweled as for a finished floor. Second, the slip joint between slab and membrane should consist of at least two slip surfaces, usually created by the laying of a tough dry sheet (such as heavy kraft paper) on the concrete, superimposed by another heavy kraft paper surface. The second layer generally consists of a 20-lb material having kraft paper on one side and prepared roofing on the other. It is laid with the kraft side down and the membrane is mopped to the roofing side, with



Photos here show important construction steps of walking deck and flower beds for roof of Seattle Public Library addition (finished roof deck on opposite page). Architects were John Paul Jones and Leonard W. S. Bindon. The primary waterproofing membrane is carried flat across the entire slab. Then planting bed walls are concreted, and a secondary membrane is laid extending from the top of walls down and across the floor, and up opposite wall (top, left). As a protection to this membrane, wire reinforcement is gunned into place (top, center). Planting bed is drained into sump through gravel (top, right). Membrane must be flashed and clamped to lower drainage pan of floor drain (bottom, left). Mortar bed and quarry tile are placed last (bottom, right).

care being taken not to get asphalt or tar between the kraft layers. At least 2 courses of reinforcement are needed to strengthen the membrane, lapped at least 6 in. to assure continuity of strength. The upper layers of the membrane should be just like the lower two layers, except in reverse — having the kraft surface up, and a kraft sheet above it, over which the wearing surface of tile or concrete is placed.

Floor drains are necessary, both for the surface drainage and for subsurface drainage of the water that may get by the top slab through shrinkage cracks. To these double-drainage-type floor drains, the membrane must be carried and clamped tightly in place. To avoid trouble from ponding and winter freezing of water that may be trapped on an uneven slab below, it is recommended that the structural slab as well as the

surface slab be laid to slope to the drain.

Sealing the base is not complete until a pan is formed by flashing the membrane against the vertical surfaces adjoining. Low sections of dividing walls such as at door openings should have the membrane carried unbroken over them, but where a tile or concrete base is used, the membrane can be carried up behind it and returned, and sealed in reglets cast into the walls. For this sealing purpose, a bituminous mastic should be used.

To avoid tearing or stripping and pulling away of the membrane from the vertical surface, a cold bituminous primer is first applied to the wall. To this the various plies are then bonded using a cold bituminous adhesive. Cold adhesive is used instead of hot mopping in order to create the most flexible bond possible — one which also will permit a

slight movement of the membrane without tearing it from its base surface.

Some architects and applicators may prefer a cold cemented job in its entirety, in which case the membrane is laid using the standard cold-application roof specification. One advantage of this method, seldom considered, is that, using the proper materials, the membrane may be laid in relatively wet weather by (1) keeping all operations closely coupled, by (2) using a wet-surface plastic for the flashing bond to a previously primed surface and (3) by rolling the plies into close contact and simultaneously forcing out any water.

If carefully done, the foregoing should result in a permanently watertight job. If any substantial variation occurs, especially in allowing any bitumen to come between the membrane and the slab, one may expect trouble.

ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

Photos courtesy Rohm & Haas Company



Left: skylights of white, translucent plastic, corrugated to match aluminum sheathing, admit daylight to University of Delaware field house. Above: close-up of plastic and center support

PLASTICS DAYLIGHT A FIELD HOUSE

LARGE enough to hold baseball and football practice, as well as indoor track events, the new field house of the University of Delaware gets its daylight through 24 skylights of shatter-resistant plastic. The 172-ft-long field house is a war surplus airplane hangar which has been sheathed with corrugated aluminum and glazed with panels of translucent acrylic plastic, corrugated to match the aluminum. The skylights conform to the curvature of the roof, and when viewed from the outside are barely discernible.

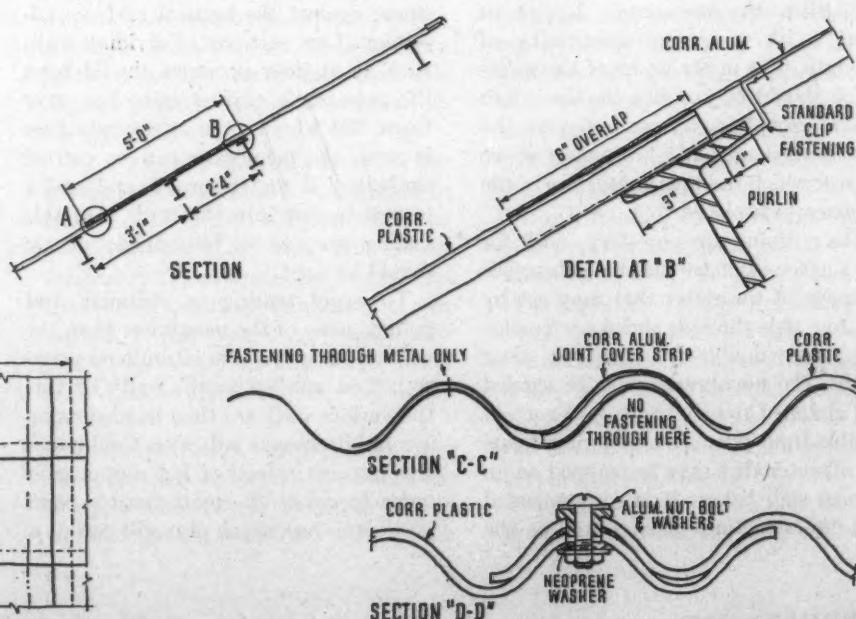
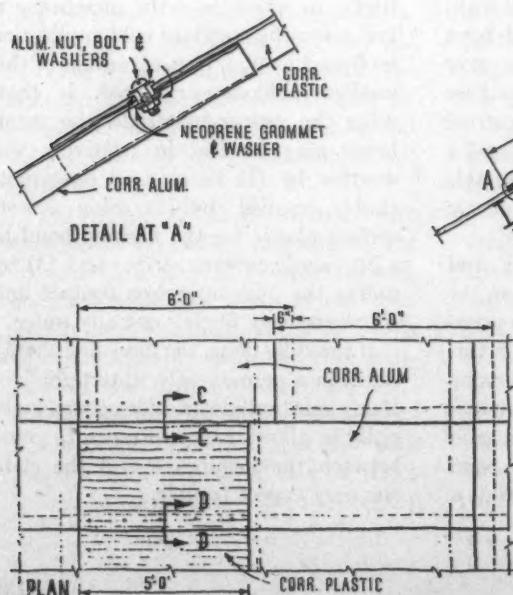
An outstanding advantage of the 18

by 5 ft plastic skylights is ease of installation (see details). The top of each plastic panel runs under the corrugated aluminum, and the bottom extends over the metal. The plastic panels are bolted at the bottom and rest on a structural member at the top, with cross-pieces across the center to aid in supporting snow loads. Standard "Z" clips attached to the cross-pieces tie the plastic panels together at the center. This operation is shown in the right-hand photo. Aluminum border strips, bolted to the plastic at each edge, seal the sides. Synthetic rubber washers and

grommets were used in the fastenings to take care of expansion of the plastic sheets.

Cost of erecting the skylights, including material and labor, was \$2 per sq ft. The plastic skylight weighs 70 lb, as compared with 437 lb for glass. Other advantages include light diffusion, helping to minimize glare; freedom from deterioration; and strength to withstand snow loads. The size of the individual plastic sheets is 36 by 60 by 0.125 in.

Architect was E. William Martin, Wilmington, Del.



CONDENSATION CONTROL FOR HOUSES

Vapor Barriers — 1: Floors and Side Walls

THE material presented here is abridged from the Housing and Home Finance Agency's publication, *Condensation Control*, by the U. S. Dept. of Agriculture in collaboration with the HHFA.

Vapor barriers, combined with ventilation and proper insulation help prevent moisture accumulations in dwellings and subsequent damage and rot. They are materials or coatings that check transmission of water vapor. A good vapor barrier, when installed, should have an average vapor transmission rate less than 1.25 grains per sq ft per hr per in. of mercury differential including joints and around openings.

Types

A number of satisfactory materials are available, including asphalt impregnated and coated papers with a glossy or bright finish. Thin, dull-surfaced papers are not as effective. Other good vapor barriers are: duplex papers composed of two sheets of 30-lb kraft paper with a 60-lb per 3000 sq ft asphalt layer between; aluminum foil mounted on a paper support or to the plaster base; and aluminum paint, oil paint or rubber base paint in sufficient coats for a smooth glossy finish. Papers used to support insulating materials which have narrow strips of asphalt as adhesive joints are not usually good vapor barriers. Value should be checked before purchase.

Use of Vapor Barriers

Not all moisture is caused by leaks or infiltration; when surfaces cool below dew point, water condenses in an enclosed space. Condensation control is possible by proper use of vapor barriers, ventilation or both. Ventilation serves to force out vapor laden air. Vapor barriers should form a light, carefully installed envelope near the warm side of the building element in which it is placed, to prevent vapor reaching the cool surfaces. The cold side of a wall should be capable of losing moisture yet resist rain and strong winds. Sheathing or breathing paper, often used between sheathing and siding, should be capable of passing five or more grains of water vapor per sq ft per hr in. of mer-

cury when tested by a dry method, and be resistant to wetting by free water. Vapor barriers should always be used when outside of walls have low permeability, in northern climates, and where walls contain materials adversely affected by moisture or moisture freezing. Basement walls are often damp from condensation. Little harm is done unless floors and walls are finished with damageable materials.

Concrete Floors Laid on Ground (Fig. 1)

1. Vapor barrier of durable paper or heavy roll roofing between gravel fill and concrete slab checks water seepage.

2. Thermal insulation (waterproofed) 1½ ft wide around perimeter and over edge of floor slab checks condensation on floors cooled by conduction to walls in winter, by breaking continuity of the concrete. Provide recess in gravel fill and around wall for the insulation.

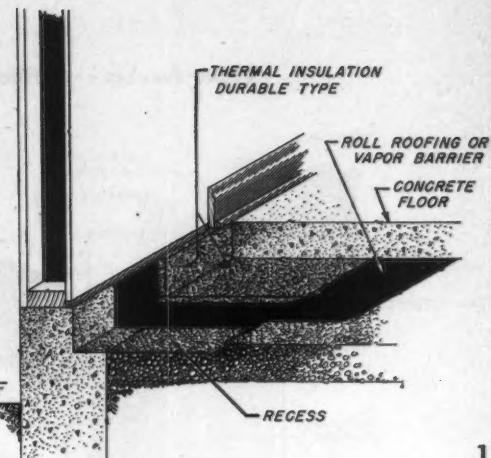
3. Vermiculite in a low density concrete aggregate or thermal insulation below floor prevents condensation caused by heat conduction to soil cooler than air in summer.

Floors Over Unheated Crawl Spaces (Figs. 2, 3)

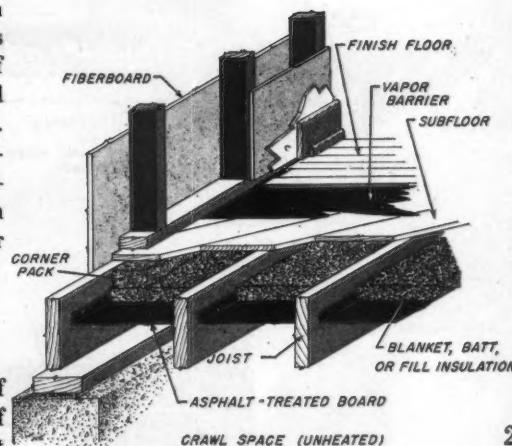
1. Ventilate crawl space with min of 4 vents, placed high near corners of building for free air movement. Net ventilation should equal 2 sq ft per 100 lineal ft of building perimeter plus $\frac{1}{3}$ of 1 per cent of crawl space ground area. Total ventilation area = specified net area x factor "A":

Vent Covering	"A"
<i>Screen all openings for vermin control.</i>	
¼-in. mesh hardware cloth	1
Screening, 8 mesh/in.	1 ¼
Insect screen, 16 mesh/in.	2
Louvers & ¼-in. mesh hardware cloth	2
Louvers & screening, 8 mesh/in.	2 ¼
Louvers & insect screen, 16 mesh/in.	3

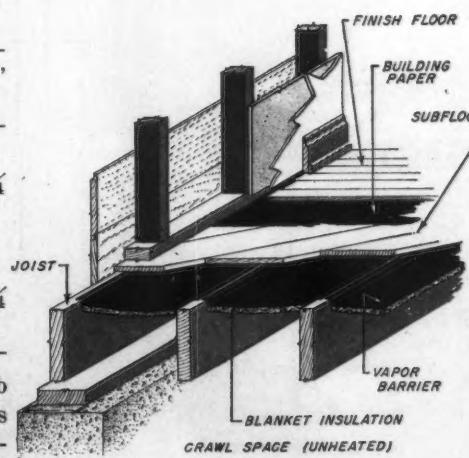
2. Ground Cover of roll roofing (55 lb per 108 sq ft or heavier) restricts evaporation and reduces need of ventilation to 10 per cent amount indicated



1



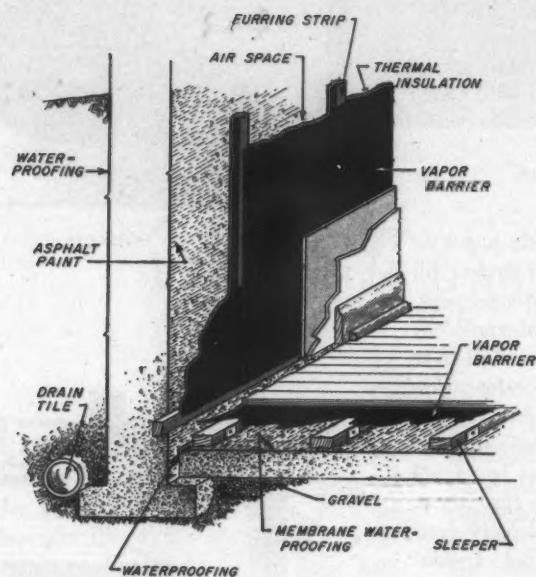
2



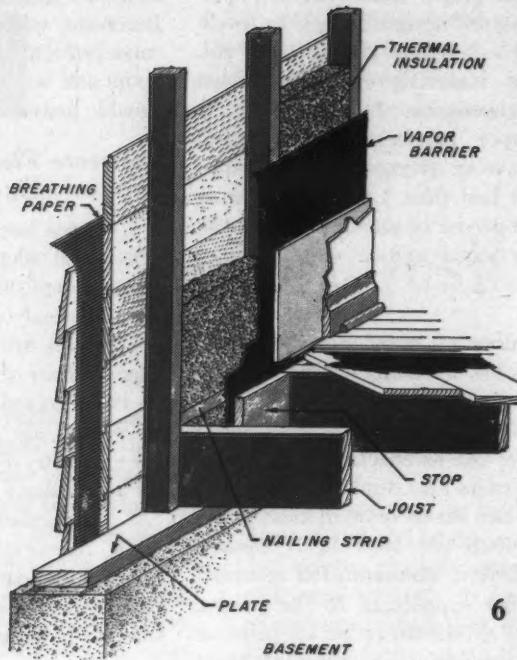
3

CONDENSATION CONTROL FOR HOUSES

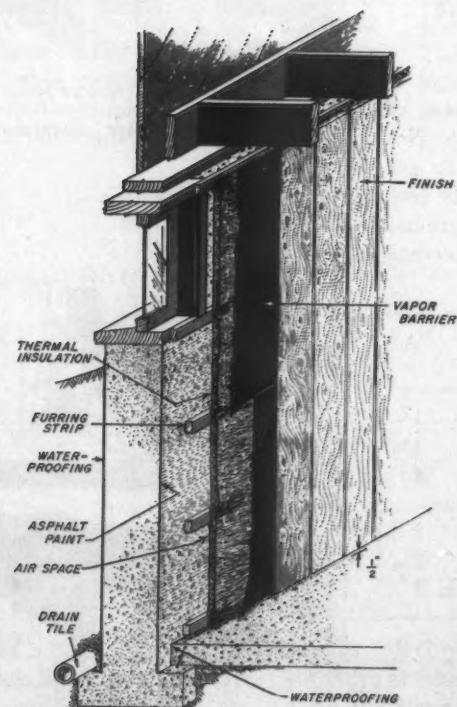
Vapor Barriers — 2: Floors and Side Walls



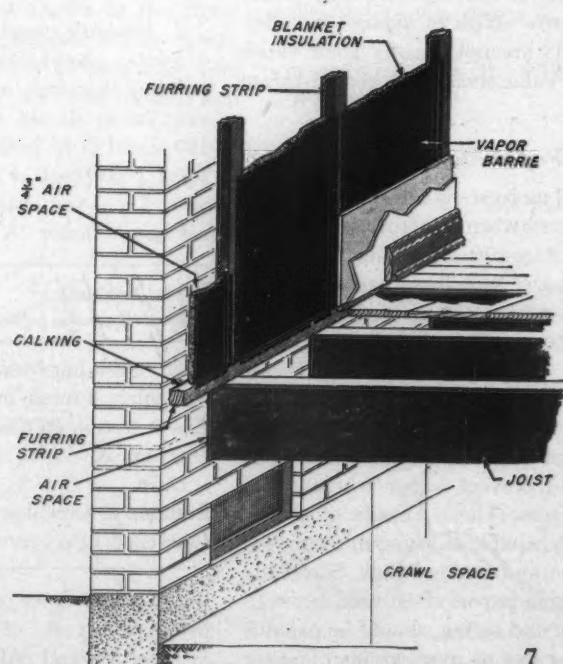
4



6



5



7

CONDENSATION CONTROL FOR HOUSES

Vapor Barriers — 3: Floors and Side Walls

above. Lap edges at least 2 in. Four in. of gravel ($\frac{1}{8}$ in. diam or larger) may be used but requires more ventilation.

3. *Drainage*, preferably underground, is necessary on sloping sites. Soil surface below building should be above grade if there is a chance water might get inside foundation wall on level sites.

4. *Vapor barrier* is not required in floor if lower (cold) side is permeable. It is recommended, however, between finish and sub floors to prevent possible buckling from dampness in crawl space.

5. *Insulate* floors and pipes so vents can be left open all year, if necessary for condensation control. Some blanket insulations are made with good quality vapor barriers; when used, place building paper (or vapor barriers if desired) between finish and sub floors. Low surface temperature of reflective insulation necessitates use of vapor barrier. Allow min of $\frac{3}{4}$ -in. air space between such insulation and adjacent surfaces. It is not practical to seal joints of asphalt-treated board supports for insulation, therefore use of a vapor barrier is indicated. Where corner packs are used along outside joists, crawl space must be well vented and ground covers used in wet locations.

Basement Floors (Fig. 4)

1. *Vapor barrier* below finish floor prevents entry of water into space between concrete and finish floor.

2. *Membrane waterproofing* is recommended over concrete sub floors.

3. *Gravel* should be placed below concrete for drainage.

Basement Walls (Fig. 5)

1. *Vapor barrier* placed behind surface, parallel to furring strips and lapped only over solid supports, prevents accumulation of free water behind finish surface.

2. *Insulation* is not essential, but will keep finish at a higher temperature,

lower moisture content, and keep basement warm in winter. Allow air space between wall and insulation.

3. *Drain tiles* are recommended near footings in wet soils as well as waterproofing coating on outside of wall.

4. *Asphalt paint* is recommended on inside of masonry wall.

5. *Furring Strips* should be of durable wood or treated with preservative. Strips at top, bottom, and around openings should be continuous to form a good seal. Both wall finish and furring strips should be kept $\frac{1}{2}$ -in. above concrete floor.

Floors Over Basements (Fig. 6)

1. *Vapor barriers* should be placed over insulation above foundation wall.

2. *Building paper* should be placed between finish and sub floors.

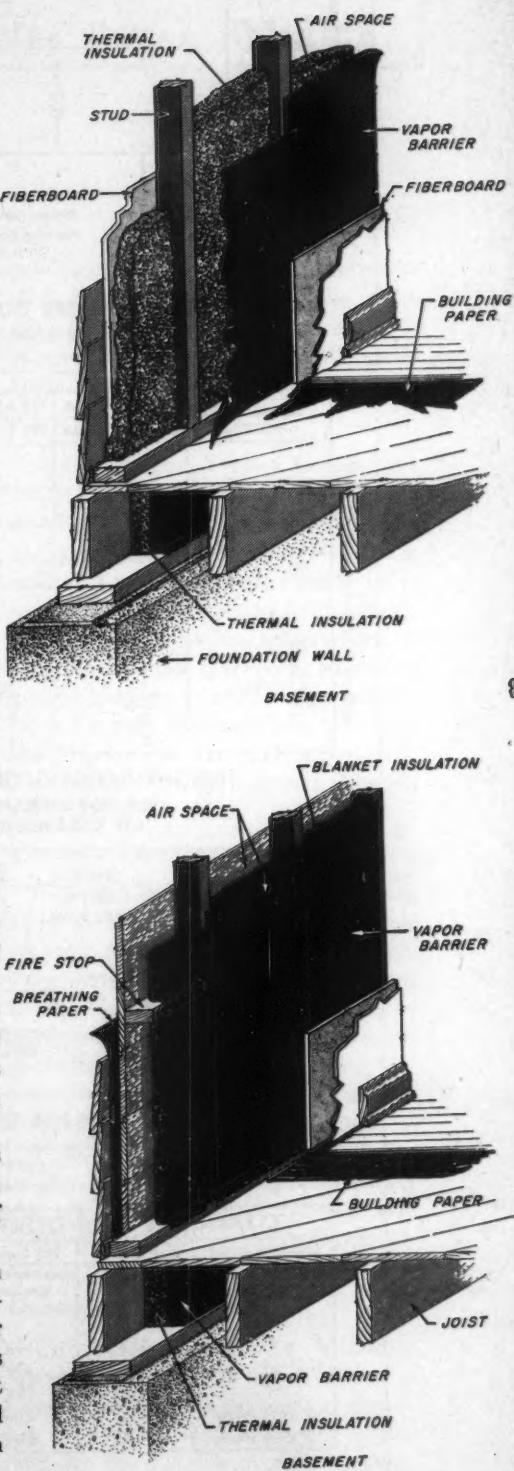
Side Walls (Figs. 7, 8, 9)

1. *Vapor barriers* should be placed over inside (warm) face of studs and run vertically through full story height, lapping only over studs. Fit closely around all openings and partitions.

2. *Insulation* is best placed on the warm side of wall, as water will be dispersed more readily than if placed against sheathing. Air space should be left on one or both sides of insulation if possible. If blanket insulation with vapor barrier is used, thoroughly close openings at top and bottom of stud spaces or other horizontal obstructions such as fire stops. Reflective insulation requires a separate vapor barrier.

3. *Ventilation* in cold cavities of walls is effective if opened to the outside. Use 1-in. of opening per running ft of wall, at both top and bottom.

4. *Brick Walls* over crawl spaces, with vapor barriers, require a horizontal furring strip fixed tightly to the brick over joists or above sub floor. Fill any gaps with caulking compound to prevent migration of water vapor from crawl space to attic. Allow air space between insulation and brick.



HARDWARE-7: Hinges

By Seymour Howard, Architect, with the cooperation of American Society of Architectural Hardware Consultants

(Continued from page 143)

<p>Height of Door (or Length of Transom)</p> <p>Number of Hinges per Door Varies with Height of Door</p>	HOW TO SPECIFY HINGES Number (in Pairs) - Either Ball or Oilite Bearings (if Required) - Type of Tips - Type of Screws - Type of Hinge - Metal - Height - Width (Required Only for Full Mortise Hinges) - Weight (Regular or Heavy) - Finish																																																																																					
	TEMPLATE HINGES are Made to Standard, Templates or Patterns (Usually in Accordance with Government Standards) to Insure Exact Matching of Hinge and its Screw Holes with Metal Doors and Metal Jambs Fabricated by Other Manufacturers																																																																																					
	<p>Head Rabbet</p> <p>Equal</p> <p>Equal</p> <p>10"</p> <p>Finished Floor</p>																																																																																					
	LOCATION OF HINGES																																																																																					
	<table border="1"> <thead> <tr> <th>WOOD</th> <th>1 1/4" & 1 3/8" Transom</th> <th>1 1/2" & 1 7/8" Transom</th> <th>1 1/8" Thick Door</th> <th>—</th> <th>1 3/8" Thick Door</th> <th>19/16" to 1 7/8" Thick Door</th> <th>2" to 2 1/2" Thick Door</th> </tr> <tr> <th>STEEL</th> <th>1 1/4" & 1 3/8" Transom</th> <th>1 1/2" & 1 7/8" Transom</th> <th>—</th> <th>1 1/8" Thick Door</th> <th>—</th> <th>1 1/4" to 1 7/8" Thick Door</th> <th>2" to 2 1/2" Thick Door</th> </tr> </thead> <tbody> <tr> <td>50"</td> <td>4'-0"</td> <td>4'-2"</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>43"</td> <td>3'-7"</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>37"</td> <td>3'-1"</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>36"</td> <td>3'-0"</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>32"</td> <td>2'-8"</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2'-0"</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>20"</td> <td>1'-8"</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1'-0"</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							WOOD	1 1/4" & 1 3/8" Transom	1 1/2" & 1 7/8" Transom	1 1/8" Thick Door	—	1 3/8" Thick Door	19/16" to 1 7/8" Thick Door	2" to 2 1/2" Thick Door	STEEL	1 1/4" & 1 3/8" Transom	1 1/2" & 1 7/8" Transom	—	1 1/8" Thick Door	—	1 1/4" to 1 7/8" Thick Door	2" to 2 1/2" Thick Door	50"	4'-0"	4'-2"						43"	3'-7"							37"	3'-1"							36"	3'-0"							32"	2'-8"							2'-0"								20"	1'-8"							1'-0"						
WOOD	1 1/4" & 1 3/8" Transom	1 1/2" & 1 7/8" Transom	1 1/8" Thick Door	—	1 3/8" Thick Door	19/16" to 1 7/8" Thick Door	2" to 2 1/2" Thick Door																																																																															
STEEL	1 1/4" & 1 3/8" Transom	1 1/2" & 1 7/8" Transom	—	1 1/8" Thick Door	—	1 1/4" to 1 7/8" Thick Door	2" to 2 1/2" Thick Door																																																																															
50"	4'-0"	4'-2"																																																																																				
43"	3'-7"																																																																																					
37"	3'-1"																																																																																					
36"	3'-0"																																																																																					
32"	2'-8"																																																																																					
2'-0"																																																																																						
20"	1'-8"																																																																																					
1'-0"																																																																																						
HEIGHT (LENGTH) OF EACH HINGE - Varies with Width, Thickness and Material - (Note: -x Means Extra Heavy) FOR HIGH FREQUENCY DOORS, USE EXTRA-HEAVY HINGES																																																																																						
Note: Doors of Wrought Bronze, Since They Weigh About 50% More Than Steel, Always Require Extra-Heavy Hinges																																																																																						
<p>Setback of Trim 3/8" for Hinges Incl. 4" 1/2" for All Others Except 5/8" for 6" & 8" Extra Heavy</p> <p>Width</p> <p>Usual Distance from Face of Door to Face of Jamb</p> <p>Door Thickness t'</p> <p>Clearance for Trim and Plinth</p> <p>a' = Distance of Mortise from Edge of Door = 1/4" for All Doors Including 2 1/4" 3/8" for Doors Thicker Than 2 1/4"</p>																																																																																						
WIDTH OF FULL MORTISE BUTT HINGE $\text{Width} = 2t' - 2a' + \text{Clearance} + 1/8"$ $= \text{Usually} = 2t' + \text{Clearance} - 3/8"$ $\text{Conversely: Clearance} = \text{Hinge Width} - 2t' + 3/8"$																																																																																						
CLEARANCES WITH OTHER TYPES OF HINGES <table border="1"> <thead> <tr> <th>Length of Hinge</th> <th>Half Surface</th> <th>Full Surface</th> <th>Full Surface</th> <th>Half Mortise</th> </tr> </thead> <tbody> <tr> <td>3"</td> <td>1"</td> <td>(Kalamein & Angle Iron Doors)</td> <td>(Tubular Steel Doors)</td> <td></td> </tr> <tr> <td>3 1/2"</td> <td>1 1/4"</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4"</td> <td>1 1/4"</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4 1/2"</td> <td>1 3/8"</td> <td>1 3/4"</td> <td></td> <td>1 3/4"</td> </tr> <tr> <td>4 1/2" Extra Heavy</td> <td>1 7/8"</td> <td>1 7/8"</td> <td>7/8"</td> <td>1 7/8"</td> </tr> <tr> <td>5"</td> <td>1 7/8"</td> <td>1 7/8"</td> <td></td> <td>1 7/8"</td> </tr> <tr> <td>5" Extra Heavy</td> <td>1 7/8"</td> <td>1 7/8"</td> <td>7/8"</td> <td>1 7/8"</td> </tr> <tr> <td>6" Extra Heavy</td> <td>2 1/8"</td> <td>2 1/8"</td> <td>7/8"</td> <td>2 1/8"</td> </tr> </tbody> </table>							Length of Hinge	Half Surface	Full Surface	Full Surface	Half Mortise	3"	1"	(Kalamein & Angle Iron Doors)	(Tubular Steel Doors)		3 1/2"	1 1/4"				4"	1 1/4"				4 1/2"	1 3/8"	1 3/4"		1 3/4"	4 1/2" Extra Heavy	1 7/8"	1 7/8"	7/8"	1 7/8"	5"	1 7/8"	1 7/8"		1 7/8"	5" Extra Heavy	1 7/8"	1 7/8"	7/8"	1 7/8"	6" Extra Heavy	2 1/8"	2 1/8"	7/8"	2 1/8"																																			
Length of Hinge	Half Surface	Full Surface	Full Surface	Half Mortise																																																																																		
3"	1"	(Kalamein & Angle Iron Doors)	(Tubular Steel Doors)																																																																																			
3 1/2"	1 1/4"																																																																																					
4"	1 1/4"																																																																																					
4 1/2"	1 3/8"	1 3/4"		1 3/4"																																																																																		
4 1/2" Extra Heavy	1 7/8"	1 7/8"	7/8"	1 7/8"																																																																																		
5"	1 7/8"	1 7/8"		1 7/8"																																																																																		
5" Extra Heavy	1 7/8"	1 7/8"	7/8"	1 7/8"																																																																																		
6" Extra Heavy	2 1/8"	2 1/8"	7/8"	2 1/8"																																																																																		
FREQUENCY OF OPERATION OF DOORS <table border="1"> <thead> <tr> <th>HIGH FREQUENCY</th> <th>DAILY</th> <th>ANNUALLY</th> </tr> </thead> <tbody> <tr> <td>Large Department Store Entrance.....</td> <td>5,000</td> <td>1,500,000</td> </tr> <tr> <td>Large Office Building Entrance.....</td> <td>4,000</td> <td>1,200,000</td> </tr> <tr> <td>Theater Entrance.....</td> <td>1,000</td> <td>450,000</td> </tr> <tr> <td>Schoolhouse Entrance.....</td> <td>1,250</td> <td>225,000</td> </tr> <tr> <td>Schoolhouse Toilet Door.....</td> <td>1,250</td> <td>225,000</td> </tr> <tr> <td>Store or Bank Entrance.....</td> <td>500</td> <td>150,000</td> </tr> <tr> <td>Office Building Toilet Door.....</td> <td>400</td> <td>118,000</td> </tr> </tbody> </table>							HIGH FREQUENCY	DAILY	ANNUALLY	Large Department Store Entrance.....	5,000	1,500,000	Large Office Building Entrance.....	4,000	1,200,000	Theater Entrance.....	1,000	450,000	Schoolhouse Entrance.....	1,250	225,000	Schoolhouse Toilet Door.....	1,250	225,000	Store or Bank Entrance.....	500	150,000	Office Building Toilet Door.....	400	118,000																																																								
HIGH FREQUENCY	DAILY	ANNUALLY																																																																																				
Large Department Store Entrance.....	5,000	1,500,000																																																																																				
Large Office Building Entrance.....	4,000	1,200,000																																																																																				
Theater Entrance.....	1,000	450,000																																																																																				
Schoolhouse Entrance.....	1,250	225,000																																																																																				
Schoolhouse Toilet Door.....	1,250	225,000																																																																																				
Store or Bank Entrance.....	500	150,000																																																																																				
Office Building Toilet Door.....	400	118,000																																																																																				
LOW FREQUENCY <table border="1"> <thead> <tr> <th>Schoolhouse Corridor Door.....</th> <th>80</th> <th>15,000</th> </tr> </thead> <tbody> <tr> <td>Office Building Corridor Door.....</td> <td>75</td> <td>22,000</td> </tr> <tr> <td>Store Toilet Door.....</td> <td>60</td> <td>18,000</td> </tr> <tr> <td>Dwelling House Entrance.....</td> <td>40</td> <td>15,000</td> </tr> <tr> <td>Dwelling House Toilet Door.....</td> <td>25</td> <td>9,000</td> </tr> <tr> <td>Dwelling House Corridor Door.....</td> <td>10</td> <td>3,600</td> </tr> <tr> <td>Dwelling House Closet Door.....</td> <td>6</td> <td>2,200</td> </tr> </tbody> </table>							Schoolhouse Corridor Door.....	80	15,000	Office Building Corridor Door.....	75	22,000	Store Toilet Door.....	60	18,000	Dwelling House Entrance.....	40	15,000	Dwelling House Toilet Door.....	25	9,000	Dwelling House Corridor Door.....	10	3,600	Dwelling House Closet Door.....	6	2,200																																																											
Schoolhouse Corridor Door.....	80	15,000																																																																																				
Office Building Corridor Door.....	75	22,000																																																																																				
Store Toilet Door.....	60	18,000																																																																																				
Dwelling House Entrance.....	40	15,000																																																																																				
Dwelling House Toilet Door.....	25	9,000																																																																																				
Dwelling House Corridor Door.....	10	3,600																																																																																				
Dwelling House Closet Door.....	6	2,200																																																																																				



A new series of modular seating units is shown above in a few of many possible combinations. Backed and unbacked ottomans, corner units and wedges group to form sofas, benches, etc., for large rooms. Scale models (above left) are used to plan arrangement of seats



PRODUCTS for Better Building

Modular Seating Units

The *Nuclear Series* of 20 basic seating units has been designed by Harvey Propper to create custom-tailored architectural effects. Units are varying sized components of squares and circles; curved sections are made concave or convex. Uniform 27 in. height and 30 in. depth allows each piece to fit with others, to be used singly or combined permanently in large seating surfaces.

Frames are made of selected hardwood; fillings are foam rubber, mounted on coil springs. Legs are 4 in. plated brass rods, recessed several inches from the front. An adjusting device allows legs to be raised or lowered to make up for any unevenness in the floor. They may also be fitted with rubber set glides or ball-bearing casters. Various tweedy-type materials are used for upholstering: denims, herringbone tweeds, covert cloth, linen and leather, etc.

Though especially designed for large public areas, the units are adaptable for sofa-bed and couch groupings in residences. Harvey Propper, Inc., 136 Fifth Ave., New York, N. Y.

Plastic Laminates

Parkwood Decorative, a permanently finished laminated plastic material is now on the market for such uses as table tops, counters, furniture and other interior surfaces. Finishes include wood veneers, *Pebble-Tex* and *Star Dust* color patterns. The latter are three dimensional patterns, offered in a choice of several colors. Special veneers, colors and inlaid designs are also available.

Two other plastic laminates are available from the same manufacturer: *Parkwood Hi-Den*, said to be a tough, dense,

moisture-resistant, impregnated laminate for machinery parts; and *Parkwood Honeycomb*, an impregnated paper core for use between structural sheets to form lightweight panels. Parkwood Corp., Dept. 10, 34 Water St., Wakefield, Mass.

Odorless Paint

The new *Keystone One Coat Flat Oil Paint* is reported to be free of any obnoxious paint fumes. This quality is made possible by the use of an odorless solvent developed by the petroleum industry, and a binder rendered odorless by Keystone through a secret process. These replace the customary turpentine and linseed oil. No deodorant or perfume to mask fumes is said to be used.

Increased efficiency in application is claimed for the paint, with a substantial saving in revenue to concerns which derive an income from the premises, as rooms may be occupied following completion. Keystone Paint and Varnish Co., 71 Otsego St., Brooklyn, N. Y.

Gas Gravity Furnace

The *Type 111* updraft gas gravity furnace is announced for the low cost housing market. The unit is compactly sized: 25½ in. wide, 51 in. high, and 26½ in. deep. Features include a heavy, welded steel heat exchanger with a square radiator connected to eliminate expansion strain and noise; free-floating corner baffles to create a whirling action and provide greater heat extraction; and circular cast-iron burner with manifold and controls external and adjacent to the unit. A solid base with leveling screws eliminates the need of a concrete setting or grouting. The unit is shipped

pre-assembled in two packages — one with burner and trim and the other with heat exchanger and casing. L. J. Mueller Furnace Co., 2005 W. Oklahoma Ave., Milwaukee 15, Wis.

New Planning Service

A Construction Service Department has been created by Hart & Hegeman to provide technical information on the use, specification, performance or availability of wiring devices. The service is available at no obligation to architects, electrical engineers and contractors. A field service staff of experts on wiring devices has been located throughout the U. S. for help with problems involving H & H products. Hart & Hegeman Div., The Arrow-Hart & Hegeman Electric Co., Hartford 6, Conn.

Cockpit Elevator

Elevators in the new Jordan Marsh store in Boston, Mass., have private cockpits for the operators to provide safer, more efficient service. Floors of these compartments are 1 ft. above the passenger level, giving the operator an unobstructed view of the elevator entrance. Space behind the operator is closed off, allowing passengers to move directly forward when getting off, instead of working their way from behind the operator. Westinghouse Electric Corp., 306 Fourth Ave., Pittsburgh 30, Pa.

Humidity Control

The *Niagara Controlled Humidity Method* is a system of air conditioning employing *Hygrol*, a hygroscopic chemical, to control relative humidity. Reportedly, the unit can provide dry air at

(Continued on page 186)

MANUFACTURERS' LITERATURE

Aluminum Windows

Specifications — Aluminum Windows. Presents a short form and a master specification for general requirements of aluminum windows. The latter includes materials, construction, protective coating, finish, air infiltration, fixed windows, screens, drawings, erection, caulking, glazing and cleaning after erection.

A second section gives specific requirements for double-hung, casement, and projected type windows for various structures. Features of aluminum windows are noted. 16 pp., illus. Aluminum Window Mfgs. Assoc., 209 Cedar Ave., Takoma Park, Washington 12, D. C.*

Rolling Doors

Cornell Rolling Doors (Catalog No. Z-27). Describes steel fire doors, service doors, shutters, grilles, enclosures for moving stairways, and wood doors. Specifications, details and tables of dimensions and clearances are included for all the above. Other types of Cornell doors are noted. 12 pp., illus. Cornell Iron Works, Inc., 36th Ave. & 13th St., Long Island City 6, N. Y.*

Copper Roofing

Master Specifications for Copper Roofing and Sheet Metal Work in Building Construction (Specification 100). Covers the following classifications: flat seam, standing seam and batten seam roofing; flashings; gutters and leaders; leader heads and straps; splash pans; cornices and belt courses; building expansion joints; coping covers; louvers; scuttles and eave snow flashings. 23 pp. Revere Copper and Brass Inc., 230 Park Ave., New York 17, N. Y.*

Heating Equipment

Coleman Advanced Automatic Heating Equipment for Low Cost Homes (Form A645B). Discusses line of oil or gas furnaces, floor furnaces, wall heaters and water heaters. Data includes specifications, construction details, operation diagrams, controls, crowns, adapters and notes on location. 20 pp., illus. The Coleman Co., Inc., Wichita 1, Kansas.

*Other product information in Sweet's File, 1950.

Mahogany

For American Industry — Philippine Mahogany. Folder pictures uses of mahogany in homes, commercial installations and furniture. Color photographs show 24 finishes possible with the wood. An enclosed insert gives formulas for producing these finishes. 8 pp., illus. The Philippine Mahogany Assn., 111 W. 7th St., Los Angeles 14, Calif.

Cooling Towers

Binks Type E Series Induced Draft Cooling Towers (Bulletin 42). Presents design features and operation of a compact induced draft cooling tower for use with packaged, water-cooled air conditioning and refrigeration condensing units. Specifications, size and weight tables, performance data are given, with a typical installation diagram. A cooling tower and pump selection table is included. 4 pp., illus. Binks Manufacturing Co., 3114-40 Carroll Ave., Chicago 12, Ill.

Aluminum Roofing and Siding

Alcoa Aluminum Industrial Roofing and Siding. Booklet discusses qualities of the material and gives dimension, coverage and load tables. Details show a variety of fasteners and flashings. Sketches accompany recommended application procedure and suggested specifications. 17 pp., illus. Aluminum Co. of America, Pittsburgh 19, Pa.*

Tramrail Systems

Typical Tramrail Specification File For Architects and Engineers. A set of sample specifications, to be modified to meet particular conditions, on tramrail design and operation. It covers tracks, runways, track fittings, shielded electrification, switches, bridge cranes, push trolleys, motor driven trolleys, push cranes, transfer bridges and superstructure. 10 pp. The Forker Corp., 2044 Random Road, Cleveland 6, Ohio.

Dumbwaiters

Otis Low-Rise Electric Dumbwaiters. Gives description, drawings and photo-

graphs of the dumbwaiter and its equipment. Uses and typical installations are pictured for counter level or under-counter arrangements. Layout data, installation notes, specifications, details, and width and depth tables are included. 8 pp., illus. Otis Elevator Co., 260 11th Ave., New York 1, N. Y.*

Air Conditioner

Servel All-Year Air Conditioner. Booklet discusses features and functions of the unit, with diagrams showing how it works. Pictures of the parts, and descriptions of the heating and cooling cycles and the control system are given along with drawings, specifications and installation data. Drawings and data for evaporative water coolers are also included. 8 pp., illus. Servel Inc., 119 N. Morton Ave., Evansville 20, Ind.*

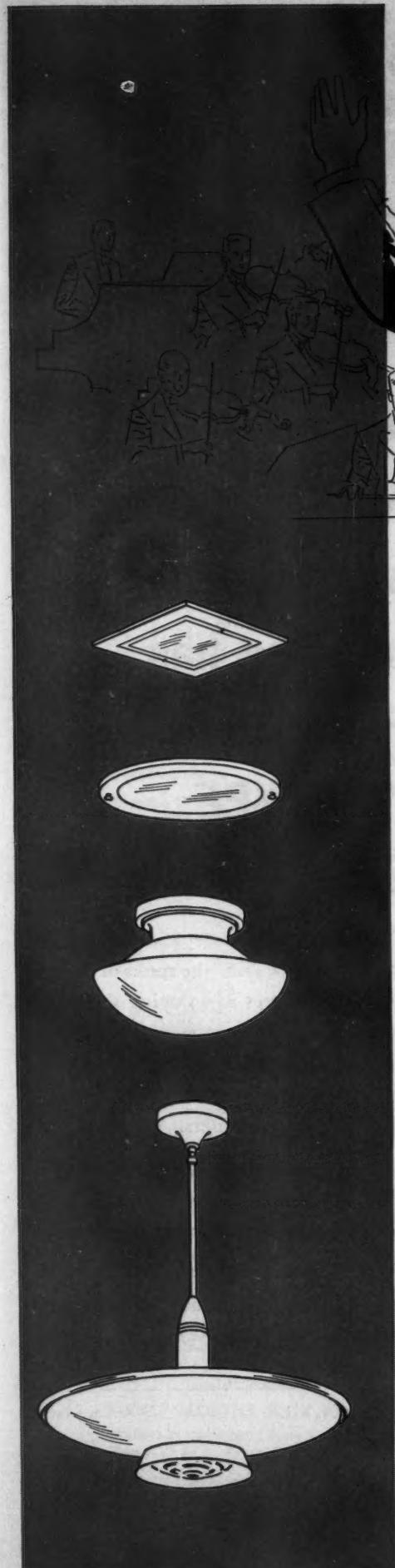
Power Cables

Selection of Proper Cable Sizes (Publication No. 19-269). Booklet presents a method of selecting the proper conductor size for heat-resistant types of wire and cable. Step-by-step instruction is given on figuring load current, voltage drop, cables, and cable sizes for both lighting and motor loads. Tables are included for these computations, for voltage and temperature classification of insulating materials, and for wire gages, dimensions and copper weights. 10 pp. General Electric Co., Construction Materials Dept., Bridgeport, Conn.*

Pressure Systems

Hydro-Pneumatic Pressure Systems (Bulletin B-579). Explains how to select equipment for hydro-pneumatic pressure systems. Four main chapters cover general description, pump and tank capacities and pressures, hydro-pneumatic system components, and pressure system auxiliary equipment. Many charts, graphs, tables and diagrammatic drawings amplify the text. 30 pp., illus. Peerless Pump Div., Food Machinery and Chemical Corp., 301 W. Ave. 26, Los Angeles 31, Calif.

(Continued on page 202)



**You strive for harmony, too . . .
you can achieve it with**

UNIFIED LIGHTING

Because harmony in architectural design is so essential to a pleasing result, architects and engineers quickly appreciate the advantages of Unified Lighting.

Unified Lighting is a broad grouping of lighting equipment meeting all commercial applications . . . suitable to the varying needs of different locations . . . yet each unit harmonizes in style characteristics and in finish to blend into conformity of design.

Send today for the Art Metal Catalog containing concise and pertinent engineering information.

Write to:

THE **ART METAL** COMPANY • CLEVELAND 3, OHIO

Manufacturers of Unified Lighting Equipment for Office, Store, School, Hospital and Hotel

WHAT UNIFIED LIGHTING IS

It's a complete line of fluorescent and incandescent lighting equipment, the symmetry of style and finish relating each harmoniously with the other.

FITZGIBBONS

heats the big jobs!



Another
New York City
apartment
building has
FITZGIBBONS
"D" TYPE
Steel Boilers

This new eighteen-story and penthouse apartment now joins the ranks of many similar structures in enjoying the outstanding operating economy and complete satisfaction of tenants which are the traditional results of heat by Fitzgibbons steel boilers.

Two large 18,000 sq. ft. "D" Type oil-fired Fitzgibbons steel boilers serve this building, providing abundant heat and also hot water for all domestic purposes with the Fitzgibbons Tanksaver.* This is a series of copper coils submerged in the boiler which eliminates the need of a space consuming storage tank.

As a major aid to operating economies, profitable management and satisfied tenants, Fitzgibbons steel boilers are setting the pace everywhere.

*Reg. U.S. Pat. Off.

Fitzgibbons Boiler Company, Inc.

101 PARK AVENUE, NEW YORK 17, N. Y.

Send me the "D" TYPE Boiler Catalog.

Arch. Rec.-Feb. '50

Name: _____

Position: _____

Address: _____

City: _____

Zone: _____ State: _____



Reg. U. S. Pat. Off.

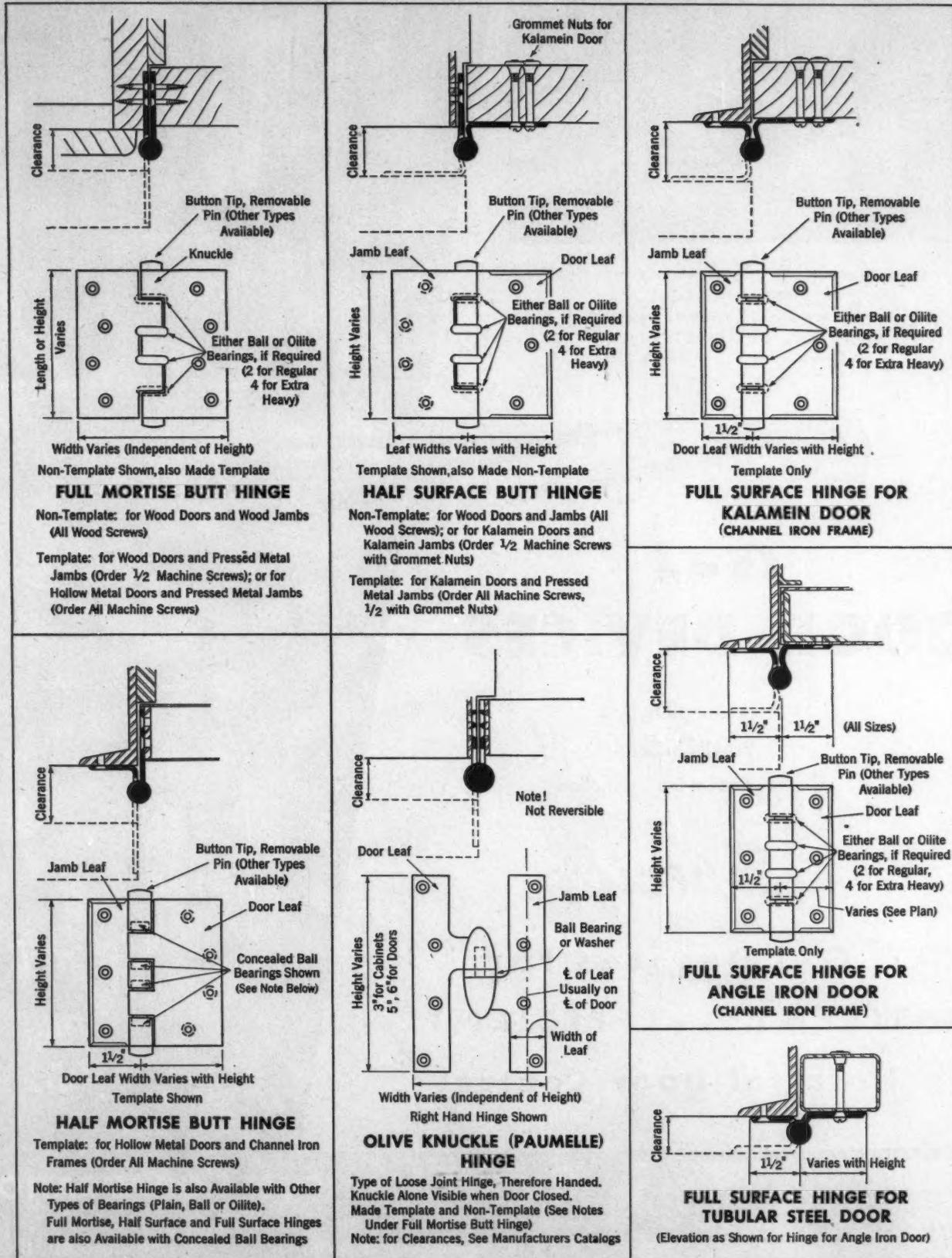


MEMBER
SBI
HEATING - PLUMBING - POWER

HARDWARE-8: Hinges

By Seymour Howard, Architect, with the cooperation of American Society of Architectural Hardware Consultants

(Continued from page 138; continued on page 145)



Used in Foremost Hospitals Everywhere



GEORGE WASHINGTON UNIVERSITY HOSPITAL
Washington, D. C.

Architects: Faulkner, Kingsbury & Stenhouse
General Contractors: Chas. H. Tompkins Co.
Hardware Dealers: W. T. Weaver & Sons



G-J 30 Roller Latch



Door Silencers

G-J 64 for Metal Frames G-J 65 for Wood Frames



G-J 320 Friction Door Holder

G-J DOOR DEVICES

- 1 A Complete Line
- 2 Proved in Service
- 3 Known for Distinction

Specify

**G-J Devices for
SILENT... EFFICIENT
Hospital Door Control**

For detailed description and applications of these devices, refer to our general catalog.



GLYNN-JOHNSON CORPORATION

Builders' Hardware Specialties for Over 25 Years

4422 N. Ravenswood Ave.,

Chicago 40, Illinois



G-J 62
Door Mute



K. H. 1
Arm Pull

HARDWARE-9: Hinges

By Seymour Howard, Architect, with the cooperation of American Society of Architectural Hardware Consultants

(Continued from page 143)

HINGE SIZES AVAILABLE

SIZE OF HINGE (LENGTH OR HEIGHT)	THICKNESS OF METAL			DIA. OF KNUCKLE (USUAL)	SIZES LISTED IN GOVERNMENT STANDARDS OR GENERALLY AVAILABLE FROM MANUFACTURERS						OTHER SIZES AND TYPES AVAILABLE FROM MANUFACTURERS	
	NON-TEMPLATE AND TEMPLATE WROUGHT METAL (GOV. STND CS 22-40 & CS 9-33)	NON-TEMPLATE CAST METAL (GOV. STND CS 22-40)	TEMPLATE CAST METAL (GOV. STND CS 9-33)		FULL MORTISE, NON- TEMPLATE	FULL MORTISE, TEMPLATE	HALF SURFACE, TEMPLATE	FULL SURFACE, TEMPLATE (BAL. DOORS)	FULL SURFACE, TEMPLATE (ANGLE IRON DOORS)	FULL SURFACE, TEMPLATE (TUBULAR STEEL DOORS)		
2"	.083"	Specified			X	X						X
2½"	.089"	by Weight			X	X						X
3"	.092"	Only; for	.156"	.515"	X	X	X					X X
3½"	.123"	Approx-	.156"	.632"	X	X	X					X
4"	.130"	mations,	.172"	.632"	X	X	X					X
4" Extra Heavy	.170"	Use Next	.250"			X						
4½"	.134"	Column	.187"	.695"	X	X	X	X	X		X X	
4½" Extra Heavy	.180"		.250"	.831"	X	X	X	X	X	X	X X	
5"	.146"		.203"	.731"	X	X	X	X	X		X X X	X
5" Extra Heavy	.190"		.281"	.831"	X	X	X	X	X	X	X X	
6"	.160"			.784"	X	X						X
6" Extra Heavy	.203"		.312"	.906"	X	X	X	X	X	X	X X	X
8" Extra Heavy	.203"			.971"	X	X						

Note: Above sizes are based on height (same as length) of hinge. Full mortise butt hinges are usually made of same width as their height (e.g.: 4½ by 4½ in., 6 by 6 in.), but are available in other widths. When clearance for trim (see Hinges, Sheet 7) make these widths unsuitable (e.g.: trim very nar-

row or omitted, or very wide plinth or trim), specify width desired, to nearest larger ½ in. dimension, and manufacturer will be able to furnish. Half surface, full surface and half mortise hinge widths are not variable.

METALS AND FINISHES USED

Recommended For Interior Doors:

Wrought steel, highly polished & heavily plated
Wrought steel, polished & plated
Wrought steel, planished & plated
Wrought steel, primed for painting
Cast iron (sometimes malleable iron)

NOTES

Note: All wrought steel hinges may have plain, ball or oilite bearings. Very accurately made; heavy copper plating before finish plating. Finish plating directly on polished steel. Finish plating directly on cold rolled steel. Inner edges of leaves cut back for paint clearance around knuckles. Free graphite in iron helps lubricate bearing.

Recommended For Exterior and Interior Doors:

Wrought or cast brass or bronze
Wrought or cast white bronze
Wrought aluminum
Wrought stainless steel
Wrought monel metal

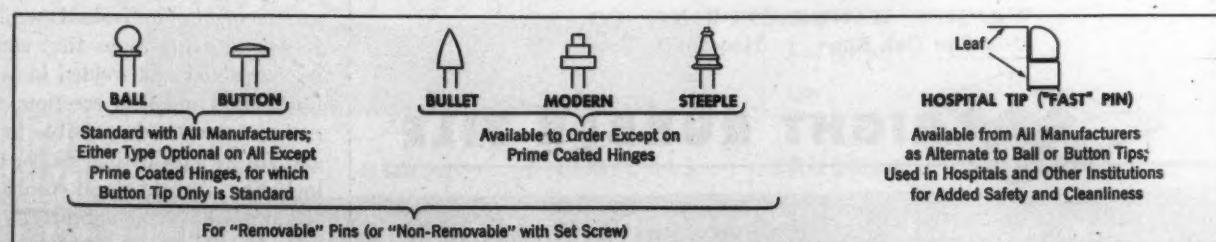
Should have either ball or oilite bearings; also stainless steel pin
Ditto
Ditto
May have either ball or oilite bearings; also stainless steel pin
Ditto

BALL BEARINGS and OILITE BEARINGS are regularly permanently fitted to knuckles to prevent accidental detachment and loss. Ball bearings are of hardened carbon steel; may be of stainless steel. Oilite is a powder metallurgy product: an alloy of 85 per cent copper, 10 per cent tin, 5 per cent graphite

(typical composition), of porous or sponge-like structure, containing lubricating oil within its pores. Depending on manufacturer, bearings may be either externally visible or concealed within knuckles (see drawings of hinge types).

PINS are usually of hardened carbon steel; may be of stainless steel. "Removable" pins should be designed to be non-rising. "Non-removable" pins may be held by set screw in

barrel to permit removal; or they may be "fast" pins, riveted, driven in, spun or welded at both ends. Fast pins make hanging of door more difficult. Types of tips available:



**The U. S. Air Force is TOUGH
on an Enemy in the Air...**



This beautiful officer's club at Ellington Field, near Houston, Texas, is a "pace setter" for officer's clubs throughout the nation. The swank Congo Bar shown here is one of several luxurious rooms in the club featuring WRIGHT RUBBER TILE.

and
ROUGH
on Officer's Club Flooring!

Selecting the right flooring for an officer's club is a special challenge. The requirements are high—and architects know it. That is why time and again, they specify WRIGHT RUBBER TILE for the "tough" jobs.

They know that an officer's club floor must be beautiful. It must be comfortable and able to withstand damage from spilled drinks, cigarette butts and frequent re-arrangement of heavy furniture. It must be in good, pleasing taste, quiet, and unbelievably durable. WRIGHT RUBBER TILE, the nation's first rubber tile floor covering, meets all these requirements.

Non-porosity gives WRIGHT RUBBER TILE a resistance to damage unequalled by any other floor covering, as well as unparalleled beauty and long life.

No wonder Ellington Field officers chose Wright, the oldest and best known rubber tile in existence.

A floor covering that meets the requirements of an officer's club will be ideal for any room where luxury and resistance to hard wear and damage are paramount. That's why architects everywhere are consistently specifying WRIGHT RUBBER TILE for every job.

Write us for the new booklet for architects—
giving full specifications of WRIGHT RUBBER TILE

WRIGHT MANUFACTURING CO.
5204 Post Oak Road • Houston 5, Texas



FLOORS OF DISTINCTION

- WRIGHTEX—Soft Rubber Tile
- WRIGHTFLOR—Hard Surface Rubber Tile
- WRIGHT-ON-TOP Compression Cove Base

THE RECORD REPORTS

(Continued from page 24)

ON THE CALENDAR

Feb. 19-23: Sixth Annual Convention and Exposition, National Assn. of Home Builders, Stevens and Congress Hotels, Chicago, Ill.

Feb. 27-Mar. 3: Committee Week and Spring Meeting, American Society for Testing Materials, Hotel William Penn, Pittsburgh, Pa.

Through Mar. 5: Exhibition of Mies van der Rohe Model, Museum of Modern Art, New York City.

Mar. 28-31: 1950 National Plastics Exposition, Navy Pier, Chicago, Ill.

Apr. 4-8: National Production Exposition, sponsored by Chicago Technical Societies Council, Inc., Stevens Hotel, Chicago, Ill.

Apr. 10-16: VII Congress of Pan-American Architects, Havana, Cuba.

Apr. 19-21: Spring Meeting, American Society of Civil Engineers, Los Angeles, Calif.

COMPETITIONS

Welded Bridges Theme for 1950 Lincoln Competition

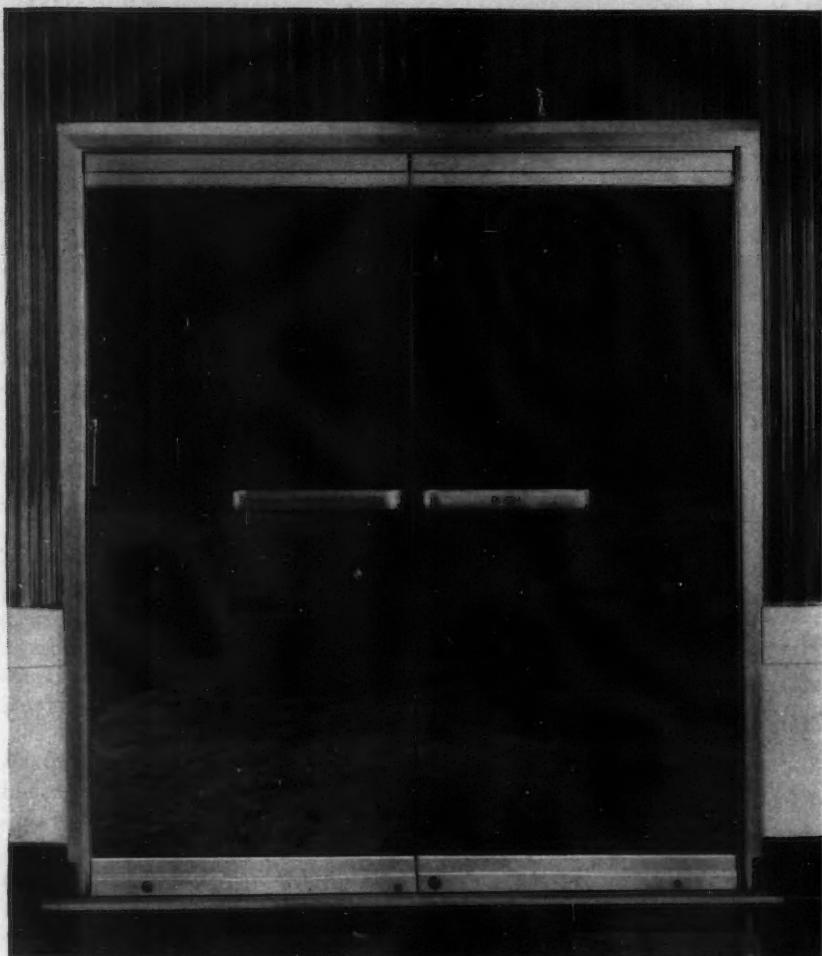
"Welded Bridges of the Future" is the 1950 Award Program of the James F. Lincoln Arc Welding Foundation. Its objective is "to stimulate original and creative thinking on the design of bridges."

The competition, which carries awards totaling \$10,750, is open to all persons who consider themselves qualified. Each participant must present an original, all-welded design for a two-lane through highway bridge with a span of 250 ft. All exhibits must have been completely executed between Nov. 1, 1949 and June 30, 1950, when the competition closes.

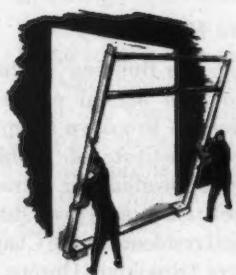
In rating the merits of exhibits, the Jury of Award will consider five factors: compliance with competition specifications; ingenuity in developing shapes, arrangement of individual members, sections and connections that can readily be assembled and welded in both shop fabrication and field erection, with due regard to methods possible in existing and future fabricating shops; the cost, including maintenance; probable life; the appearance of the bridge.

(Continued on page 148)

2180933 020323 317
Only *Pittsburgh* can offer



Architect: Francis W. Swen, Pittsburgh, Pa.



REACHES JOB READY FOR WORK.
In one "package" there's everything needed for quick installation: moldings for transom glass, supports for sidelights, strikes for locks, sockets for bolts, Pitco Checking Floor Hinge.

HANDSOME, RUGGED FRAME — ►
precision-built of special shapes and heavy extruded aluminum, reinforced with structural steel.



COMPACT, EFFICIENT,
laboratory-tested Pitco Checking Floor Hinge. Especially developed for Pittsburgh Doorways. Has built-in door holder, positive door-speed control, separate checking control. Is sealed in oil for life.

Pittsburgh
DOORWAYS



PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY

Pittsburgh Plate Glass Company
2012-0 Grant Building, Pittsburgh 19, Pa.

Without obligation on my part, please send me a FREE copy of your booklet on Pittsburgh Doorways.

Name.....

Address.....

City..... State.....

THE RECORD REPORTS

(Continued from page 146)



skylines...

by Otis

Toronto, which began as a wooden stockade on a site known to the Indians as the "place of meetings", has grown to be Canada's commercial and financial capital and a great educational and cultural city. The home of Toronto University, it supports two symphony orchestra organizations and stages the annual Canadian National Exhibition which is the industrial show window of Canada. Toronto's skyline, which includes the tallest skyscraper in the British Empire, is served by 3,724 elevator installations — of which 2,174 are by Otis.

STAIRWAY TO THE STARS.

Loge and balcony seats are as popular as those in the orchestra in the new \$2,000,000 Skouras Calderone Theatre in Hempstead, Long Island, N. Y. They're just as easy to reach.

It doesn't take a bit of effort or exertion to travel from the lobby to the mezzanine on the Escalator.



THIS IS HOW IT'S DONE.

You've probably noticed that aisles in well-managed stores are free of cartons and crates. And you always have a full selection of everything. It's done very simply with an Otis Undercounter Dumbwaiter.



SHE WON'T GO IN!

Hotel managers! Don't let lucrative convention business pass you by — because your freight elevator can't handle display material. We'll be glad to help with your modernization plan.

If you're interested in knowing more about Undercounter Dumbwaiters for stores, restaurants, clubs, etc., write for Otis Booklet A-380-S.

ELEVATOR COMPANY

Home Office: 260 11th Ave., New York 1, N. Y.



Awards will be made as follows: First Award, \$5000; Second Award, \$2500; Third Award, \$1250; 10 Honorable Mentions, \$200 each.

The 1950 Program is dedicated to Wilbur M. Wilson, Research Professor of Structural Engineering Emeritus, University of Illinois.

Mr. Wilson is honorary chairman of both the Rules Committee and the Jury of Award, which is to include at least five members of the Rules Committee.

Chairman of the Rules Committee is Prof. James G. Clark of the Department of Civil Engineering, University of Illinois.

Other members of the Rules Committee are: Prof. E. E. Dreese, Dept. of Civil Engineering, Ohio State University; Raymond Archibald, chairman, AASHO Bridge Comm., U. S. Bureau of Public Roads; Harry C. Boardman, director of research, Chicago Bridge and Iron Co.; Shortridge Hardesty, consulting engineer, Hardesty and Hanover, New York City; Lee E. Philbrook, asst. bridge engineer, Illinois State Div. of Highways; Prof. Frank W. Stubbs Jr., School of Civil Engineering and Engineering Mechanics, Purdue University.

Prospective participants may obtain complete information by addressing: The Secretary, The James F. Lincoln Arc Welding Foundation, P.O. Box 5728, Cleveland 1, Ohio.

Allied Arts Building

"An Allied Arts Building" is the subject for the 20th annual competition conducted by the Brooklyn Chapter of the American Institute of Architects. March 14 is the deadline for entries.

The competition is open to all students who have legal residence in the Chapter's territorial area (Brooklyn, Queens, Nassau, Suffolk) and who attend architectural schools anywhere in the United States, and to architectural draftsmen employed in or living in the territorial area.

Three prizes — \$100, \$50, and \$25 — will be awarded, and winning designs will receive public recognition.

Programs and details may be obtained from Vito P. Battista, chairman of the Committee on Education, Brooklyn Chapter, A.I.A., 26 Court St., Brooklyn, N. Y.

(Continued on page 150)

A \$75,000 per year saving in the making . . .

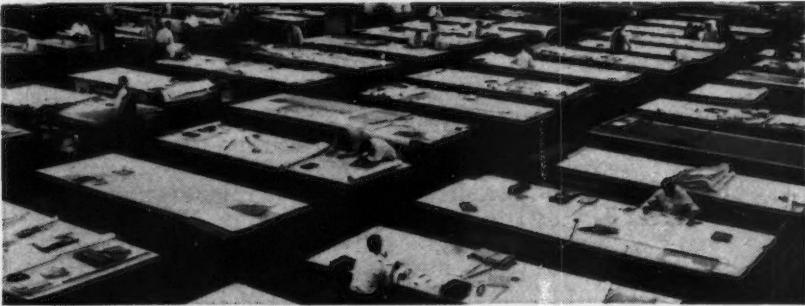


Streaming off this continuous processing machine at the Ford Motor Company . . . are Kodagraph Autopositive prints—positive

photographic intermediates of original drawings. *The answer to a \$75,000 per year redrafting headache!*



Before . . . Ford's valuable original drawings had a short life . . . had to do double duty in the drafting room and in heavy print production. In the latter operation, they were exposed to machine wear and tear, constant handling. Soon they lost their detail . . . produced illegible blueprints . . . which meant that new drawings had to be ordered from the drafting room.



Now . . . Ford's originals are filed away in the drafting room after Kodagraph Autopositive intermediates are made—available for reference and revisions only! All blueprints are produced from the "Autopositives," whose photographic black lines will not smudge or lose opacity . . . assuring highly legible prints even after hundreds of "run throughs." As a result of this simple change in routine, *redrafting costs are reduced by an estimated \$75,000 per year . . . while the output of creative drafting is increased*. And print production is simplified, too . . . for Kodagraph Autopositives are not only longer-lasting . . . but can be printed at uniform, practical machine speeds.

Kodagraph Autopositive Paper "The Big New Plus" in engineering drawing reproduction

You, too, can cut your drafting costs, get improved legibility, and simplify print production . . . by reproducing your drawings on this new, low-cost photographic intermediate paper.

You can turn out "Autopositives" quickly, economically . . . with your present print-making equipment and standard photographic processing. Or else you can order them from your local blueprinter. *It will pay you to get all the facts soon!*

MAIL COUPON FOR FREE BOOKLET

**EASTMAN KODAK COMPANY
Industrial Photographic Division
Rochester 4, N. Y.**

GENTLEMEN: Please send me a copy of your illustrated booklet giving all the facts on Kodagraph Autopositive Paper.

NAME _____ POSITION _____

(please print)

COMPANY _____ STREET _____

CITY _____ STATE _____



Kodak
TRADE-MARK

THE RECORD REPORTS

(Continued from page 148)

LeBrun Scholarship

Opening of the 23rd annual LeBrun Traveling Scholarship, a national competition offered by the New York Chapter of the American Institute of Architects, has been announced by Robert I. Carson, chairman of the chapter's Committee on LeBrun Scholarship.

Design of a suburban railway station is this year's competition subject. First prize is \$2800, which must be used for travel and the study of architecture outside the continental United States for a period of at least six months.

Applicants must be nominated before February 10 by an A.I.A. member who will certify that the applicant meets competition requirements. These requirements are: U.S. citizenship and residence; age 23 to 33; at least two years' practical experience as architect or architectural draftsman. In addition, the applicant must never have been the beneficiary of any other traveling scholarship.

The first scholarship was awarded in 1912, under the terms of a deed of gift from Pierre LeBrun to the New York Chapter.

Further details may be obtained from the LeBrun Scholarship Committee, New York Chapter, A.I.A., 115 E. 40th St., New York, N.Y.

ELECTIONS APPOINTMENTS

• Brig.-Gen. John S. Bragdon has been designated Deputy Chief of Engineers, Department of the Army, according to an announcement by Maj.-Gen. Lewis A. Pick, Chief of Engineers.

• John G. Bergdoll Jr., vice president and general works manager of York Corp., York, Pa., has been elected president for 1950 of the American Society of Refrigerating Engineers. Other officers for this year are: Paul B. Christensen, Merchants Refrigerating Co., New York City, and Edward Simons, consulting engineer, San Francisco, vice presidents; R. C. Jordan, professor of mechanical engineering, University of Minnesota, treasurer.

• Dr. George G. Brown, chairman of the Department of Chemical and Metallurgical Engineering at the University of Michigan, has been named director of

(Continued on page 152)

How To Apply Glazing Material to save time and money

Iron Clad Rules

1. Have dust and dirt removed from sash.
2. Be sure the sash is dry.
3. Wood sash must be primed. Metal sash must be free from rust.
4. See that clips are suitably installed.
5. Avoid using thinners excessively.
6. Use your glazing material fresh from the manufacturer and be sure it is mixed with all the oil.
7. Protect your lights from condensation until glazing material is set and painted.
8. Do not let sash frames be jarred or handled until glazing material has set.
9. After putty is set (about 14 days) always have it painted immediately! We recommend painting compounds, too.

SPECIFY D-P BRANDS—

- NO. 1012 ALUMINUM SASH COMPOUND
- TRU-GLAZE COMPOUND
- COMPLETE LINE OF WOOD, METAL SASH AND SPECIAL PUTTIES
- CAULKING COMPOUND
- WHITE WONDER GENERAL PURPOSE TILE CEMENT

facts about glazing

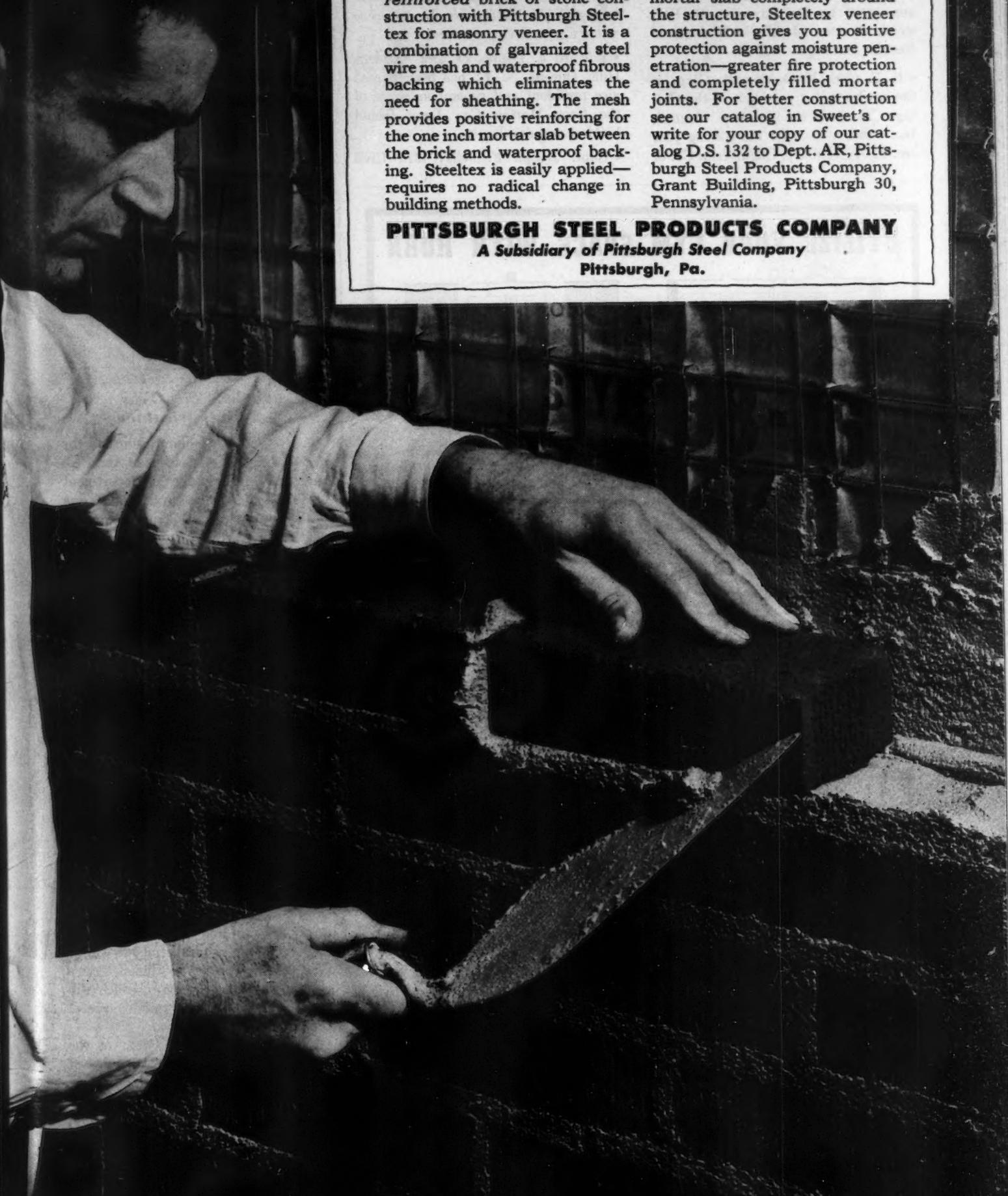
GET THE COMPLETE STORY IN THIS IMPORTANT NEW BOOK

COPYRIGHT 1950 BY DICKS-PONTIUS CO.

Every architect and builder should have a copy of "Facts About Glazing." Send for your free copy today.

Makers of quality putty products for 80 years

THE DICKS-PONTIUS CO., Dayton 1, Ohio—Alexandria, Va.



You Get Many Construction Advantages with Pittsburgh Steeltex for Masonry Veneer

You get extra strong walls of reinforced brick or stone construction with Pittsburgh Steeltex for masonry veneer. It is a combination of galvanized steel wire mesh and waterproof fibrous backing which eliminates the need for sheathing. The mesh provides positive reinforcing for the one inch mortar slab between the brick and waterproof backing. Steeltex is easily applied—requires no radical change in building methods.

In addition to the monolithic mortar slab completely around the structure, Steeltex veneer construction gives you positive protection against moisture penetration—greater fire protection and completely filled mortar joints. For better construction see our catalog in Sweet's or write for your copy of our catalog D.S. 132 to Dept. AR, Pittsburgh Steel Products Company, Grant Building, Pittsburgh 30, Pennsylvania.

PITTSBURGH STEEL PRODUCTS COMPANY
A Subsidiary of Pittsburgh Steel Company
Pittsburgh, Pa.

THE RECORD REPORTS

(Continued from page 150)

the U. S. Atomic Energy Commission's Division of Engineering, it has been announced by Dr. Lawrence R. Hafstead, director of AEC's Division of Reactor Development.

• E. E. Carl, Johns-Manville Corp., is the newly-elected president of the Chicago Chapter of the Producers' Council, Inc. Other officers for the coming year are: E. J. Bradbury, Chamberlin Co. of

America, Inc., vice president; J. R. Keller, Aluminum Co. of America, secretary; W. M. Buchroeder, Jr., Alberene Stone Corp. of Va., treasurer.

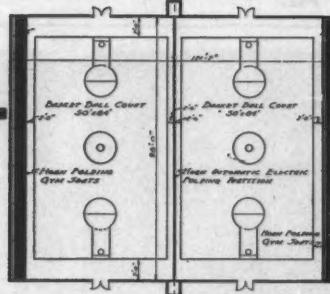
• Edward J. Dennis of Kew Gardens Hills, Queens, N. Y., has been named vice president and general manager of the Gross-Morton Co., Long Island builders and developers.

• Capt. Joseph F. Jolley, Jr., Civil

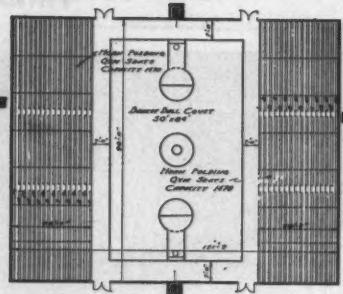
Engineer Corps., U.S.N., has been appointed to a four-year term as chief of the Navy's Bureau of Yards and Docks and Chief of Civil Engineers, succeeding Rear Admiral John J. Manning, CEC, USN. The appointment, which will elevate Captain Jolley to Rear Admiral rank, must be confirmed by the Congress.

• Robert B. Taylor of Newark, Ohio, has been named to the post of Director of Research for the new Structural Clay Products Research Foundation, Foundation Chairman E. F. Plumb has announced. Mr. Taylor has been assistant director of research for Owens-Corning Fiberglas Corp.

UTILIZE YOUR GYM SPACE WITH HORN



Two regulation basketball courts separated by a Horn Automatic Electric Folding Partition. Horn Folding Bleachers in folded position.

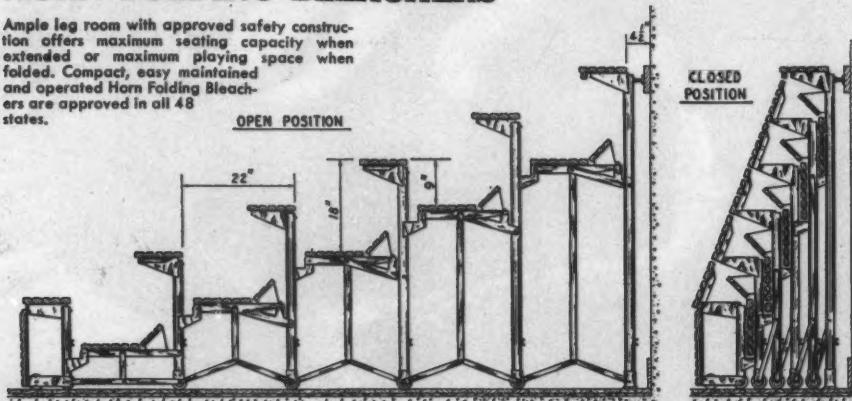


HORN FOLDING BLEACHERS extended increases the seating capacity for the BIG GAME! Horn Folding Bleachers will meet your requirements.

HORN FOLDING BLEACHERS

Ample leg room with approved safety construction offers maximum seating capacity when extended or maximum playing space when folded. Compact, easy maintained and operated Horn Folding Bleachers are approved in all 48 states.

OPEN POSITION



CLOSED POSITION

ROWS	FLOOR SPACE		**HEIGHT	ROWS	FLOOR SPACE		**HEIGHT
	IN USE	*CLOSED			IN USE	*CLOSED	
3	4' 9"	1' 8 1/4"	3' 0"	12	21' 3"	4' 3 1/4"	9' 9"
4	6' 7"	2' 0 1/4"	3' 9"	13	23' 1"	4' 6 1/4"	10' 6"
5	8' 5"	2' 3 1/4"	4' 6"	14	24' 11"	4' 9 1/4"	11' 3"
6	10' 3"	2' 6 1/4"	5' 3 1/4"	15	26' 9"	5' 12 1/4"	12' 0"
7	12' 1"	2' 10 1/4"	6' 0"	16	28' 7"	5' 4 1/4"	12' 0"
8	13' 11"	3' 12 1/4"	6' 0"	17	30' 5"	5' 8"	13' 6"
9	15' 0"	3' 5"	7' 6"	18	32' 3"	5' 11 1/4"	14' 3"
10	17' 7"	3' 8 1/4"	8' 3"	19	34' 1"	6' 2 1/4"	15' 0"
11	19' 5"	3' 11 1/4"	9' 0"	20	35' 11"	6' 6 1/4"	15' 9"



*Dimension includes 4 1/2 in. space between top seat and wall.
**Height in open position same as closed. For Bleachers higher than 20 Rows write for complete details and dimensions.

HORN BROTHERS COMPANY

DIVISION OF HORN INDUSTRIES

FORT DODGE, IOWA, U.S.A.

AT THE COLLEGES

Colorado Adds Five-Year Architecture Curriculum

A five-year curriculum leading to the degree, Bachelor of Science in Architecture, will be offered by the Department of Civil and Architectural Engineering of the University of Colorado beginning next September.

This course of study will be in addition to that in Architectural Engineering which was established 25 years ago and which has at present about 250 students.

The new curriculum will include five years of architectural design. It will also emphasize structure, Department Head Warren Raeder reports, "since we feel that the boldness of modern design requires an appreciation of both the esthetic and engineering."

Institute of Design Becomes Department of Illinois Tech

The Institute of Design at 632 North Dearborn St., Chicago, is now the department of design of Illinois Institute of Technology.

The design department will continue the Institute of Design curricula in industrial design and visual communications, and architectural students will be permitted to transfer to Illinois Tech's department of architecture, which will have the only course in architecture of the two former institutions.

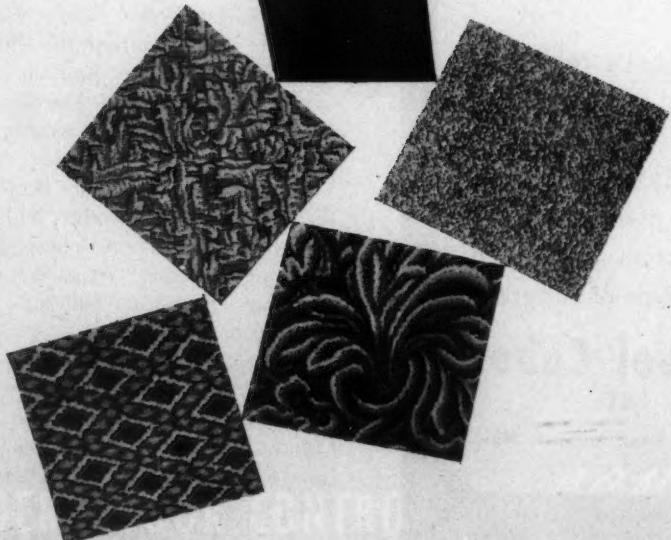
Serge Chermayeff, president of the Institute of Design, is now director of the new design department. Ludwig Mies van der Rohe, director of Illinois

(Continued on page 154)



Business is on the carpet, and carpet is our business

We can help you select the right carpet for any commercial installation. We can show you dozens of new patterns, in many weaves, many textures. We can tell you what it will cost to install the right carpet for your client. Let us save your time, your client's money. Phone your local Alexander Smith-Masland contractor today or write to Alexander Smith-Masland Contract Department, 295 Fifth Avenue, New York City.



**Alexander Smith
and
C. H. Masland**

C O N T R A C T C A R P E T S

295 FIFTH AVENUE, N. Y. 16, N.Y.

THE RECORD REPORTS

(Continued from page 152)

Tech's department of architecture, continues in that position.

For the present the new design department will operate at its near north side location. Later it will be moved to the growing Technology campus on the central south side.

Opened in 1937, the Institute of Design was founded by Lazlo Moholy, who continued as its Director till his death in 1946.

Harley, Ellington and Day Give Michigan Scholarship

A scholarship of \$1000 to be awarded each Spring for the next five years has been established at the College of Architecture and Design, University of Michigan, by Harley, Ellington and Day, architects and engineers, of Detroit.

The "Harley, Ellington and Day Scholarship," which will be awarded this Spring for the first time, will go to an

upper junior student in architecture about to enter the two senior semesters in architectural design.

The recipient will be named by the faculty for "marked ability and promise." The scholarship will not be considered a loan, nor will it be given because of financial difficulties. Its purpose, according to the announcement from the College, is "to assist an outstanding senior student to reach a higher degree of attainment than might otherwise be possible."

Faculty Appointments

• William Wilson Wurster, nationally known California architect and Dean of the School of Architecture and Planning at the Massachusetts Institute of Technology, has accepted appointment as dean of the School of Architecture and professor of architecture on the Berkeley campus of the University of California. The appointment is effective next year.

Dean Wurster, who has been with M.I.T. since 1944, is an active member of the architectural firm of Wurster, Bernardi and Emmons in San Francisco. He is also, by Presidential appointment, chairman of the National Capital Park and Planning Commission of Washington, D. C.

One of the better-known of American architects, Wurster has designed several hundred houses in the Bay Region, in the Central Valley, Santa Cruz and on the Monterey Peninsula; but he has achieved distinction in other fields of architectural design as well.

Among his outstanding works have been Valencia Gardens Housing Project for the San Francisco Housing Authority, in association with Harry A. Thomsen Jr.; the Yerba Buena Club on Treasure Island during the 1939 San Francisco Exposition; and, in association with Corbett and MacMurray of New York, Stern Hall, women's residence hall on the Berkeley campus. Valencia Gardens Housing Project and the Schuckl and Co. office building at Sunnyvale, Calif., were chosen by the Museum of Modern Art as examples of significant American buildings of the past decade.

Wurster, a native of California and a graduate (1919) of the University of California, established his firm in San Francisco in 1926, after working for a time for Delano and Aldrich in New York.

(Continued on page 156)

CABOT'S DOUBLE-WHITE THE WHITE PAINT THAT STAYS WHITE!



Architect: Irwin Jones, New York

CABOT'S DOUBLE-WHITE is a clean, brilliant, non-gloss white that stays white. Made only with white pigments that are not affected by chemical fumes and atmospheric gases. Double-White has tremendous hiding power . . . produces a pure white, velvety-smooth, long-wearing surface which never turns gray or yellow. Over the years, gradual chalking carries off the dirt and keeps the surface of Cabot's Double-White clean and fresh and white.

TWO OTHER WHITES

If a gloss finish is required, specify Cabot's No. 8341 Gloss White. Or for a "whitewash white" effect, specify Cabot's Old Virginia White...as bright and clean and cool as new whitewash and as lasting as paint. These three

whites give you your choice of an ideal finish for any type of surface.

Samuel Cabot
INC.

222 Oliver Bldg., Boston 9, Mass.

WRITE TODAY
for "The Little White Book"
showing 10 prize houses and
containing complete information
about Cabot's White
Paints and Collapaks Color
Card showing Cabot's wide
selection of 32 attractive
colors.



The Austin Company, Engineers and Builders

Walter Dorwin Teague, Designer

MODERN DOOR CONTROL BY *LCN* • CLOSERS CONCEALED IN HEAD FRAME

GENERAL OFFICES OF A. B. DICK COMPANY, NILES, ILLINOIS

LCN CATALOG 11-E ON REQUEST OR SEE SWEET'S • LCN CLOSERS, INC., 466 WEST SUPERIOR STREET, CHICAGO 10



THIS IS
YOUR HEATING SUPERINTENDENT
WHEN YOU HEAT
WITH DRAVO HEATERS

It's an *automatic* fireman who goes on the job at the flip of a switch for the Sanatex Company of Chicago. It cuts operational and maintenance expense to the bone and solves what had appeared to be an expensive heating problem for this processor of wiping cloths.

Not only is an attendant unnecessary—boiler-room and ductwork expense was eliminated, too, by installation of a Dravo *Counterflo* Heater. Centered along the east wall, the Dravo *Counterflo* Heater is entirely self-contained—requiring only power and fuel lines and a small vent stack. Its 1,000,000 BTU output is directed slightly over the heads of the workers to blanket 10,000 square feet of unbroken plant area with draft-free warm air. Cold corners and excessive roof heat loss are eliminated. During summer months, a touch of the selector switch converts the Dravo *Counterflo* Heater immediately into a powerful air-circulating unit.

Dravo *Counterflo* Heaters are available in sizes ranging from 400,000 to 2,000,000 BTU output. Equally efficient with oil or gas and with or without ductwork, they can be floor-installed, wall-hung or roof-hung. Write for Bulletin HV-516. Heating Section, Dravo Corporation, Dravo Building, Pittsburgh 22, Pennsylvania.



According to Mr. Schulman, President of Sanatex Company, the Dravo *Counterflo* Heater "is the best equipment we ever had. Delivery of heat is virtually instantaneous when the unit goes into action—an important fuel-saving feature which eliminates the need for anticipating cold spells or keeping the heater in operation when the plant is closed."

Dravo also manufactures the DRAVO CRANE CAB COOLER for air conditioning hot-metal crane cabs

DRAVO CORPORATION

PITTSBURGH • CLEVELAND • PHILADELPHIA • DETROIT • NEW YORK • CHICAGO
ATLANTA • BOSTON • Sales Representatives in Principal Cities

THE RECORD REPORTS

(Continued from page 154)

Dean Wurster will replace Prof. Warren C. Perry at California. Professor Perry resigned as dean last June, but will continue as a professor in the school of architecture.

- Ralph W. Fox, 37, has been named assistant chairman of the applied mechanics department of Armour Research Foundation of Illinois Institute of Technology. Fox has been a research engineer in the department for two and a half years.

- Several recent appointments to the teaching staff of the department of architecture of the University of Illinois have included: William S. Kinne Jr., professor of architecture; Gabriel Guevrekian, professor of architecture; Henry C. Edwards, instructor; James A. Prestridge Jr., assistant professor.

The university has inaugurated a new program of bringing outstanding practitioners as visiting critics in advanced design to live on the campus for six-week periods. Participants this year will include L. Morgan Yost of Kenilworth, Ill.; William T. Priestley Jr., Chicago; Karl Kamrath, Houston; Igor Polevitsky, Miami; Max O. Urbahn, New York.

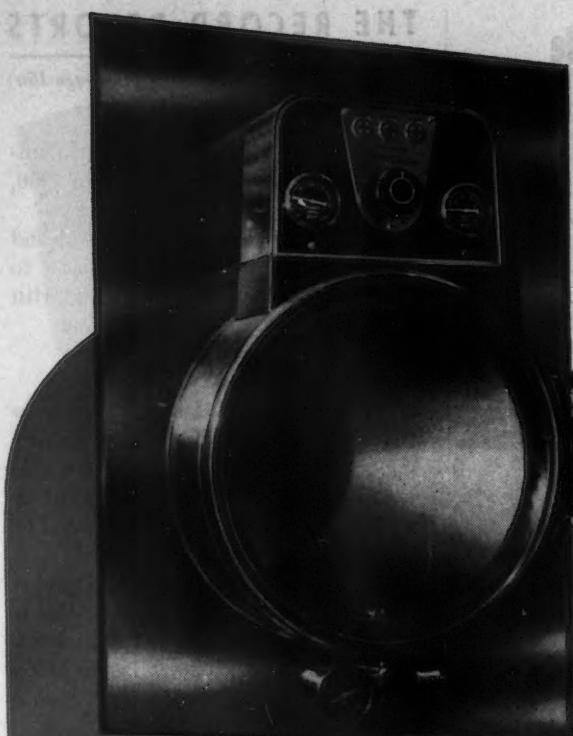
Special Courses

- Harold R. Sleeper, A.I.A., is giving a course of 10 weekly lectures for prospective home owners at Columbia University. Entitled "A Practical Course for Home Builders and Buyers," the course seeks practical answers to the would-be home owner's problems in terms of today's conditions and costs.

- Elementary and Advanced Architectural Theory and Design is among the subjects listed by the New York State Institute of Applied Arts and Sciences for the Spring Semester of the Evening Extension Division. New courses in the structural field will include Real Estate Practice and Procedure, Building Codes, Estimating, and Structural Theory and Design. Among the subjects being continued are: Construction Laboratory, Plan Reading and Quantity Takeoff, and Structural Detailing.

- A Studytour to selected urban areas in the United States is being planned for professional people, teachers and students in related fields of urban planning,

(Continued on page 158)



THIS BUILT-IN CYLINDRICAL pressure-type sterilizer is one of American Sterilizer Company's new units featuring "Cyclomatic Control." (See description in text.) Other features include welded, forged end ring of Monel, and sterilizing chamber, steam jacket, trays and slides of the same long-lasting, corrosion-resistant metal.



LONG LIFE . CLEAN PACKS
SOLID CORROSION RESISTANCE
LOW AMORTIZATION COST
LOW MAINTENANCE COST
EASILY CLEANED
FREEDOM FROM RUST
FREEDOM FROM DEZINCIFICATION
PROVED PERFORMANCE

Smooth, welded end ring of MONEL simplifies cleaning, helps prevent leakage

Tell your hospital clients about this! It means added convenience—and extra protection—in their sterilizer rooms.

Welded, forged end rings of solid Monel® are now standard on all 16" and 20" cylindrical pressure-type units made by AMERICAN STERILIZER COMPANY.

NO CREVICES

The new end ring permits joining the inner Monel shell and the Monel steam jacket shell in an all-welded construction.

No more rivets! No more solder! The inside of the Monel collar is perfectly smooth, always easy to keep surgically clean. What's more, the danger of leakage around rivet holes is ended.

WHY MONEL?

Monel—the standard metal for many types of hospital equipment such as laundry machinery and laboratory apparatus—is used because it is stronger and tougher than structural steel. Because it is non-rusting and corrosion resisting. Because it stands up against heat, steam, moisture, and the corrosive action of acids, alkalies, detergents

Pass the big news along to your clients!

Recent Improvements by American

ADD EXTRA EASE EXTRA SAFETY To Sterilizer Operation

and hospital solutions.

Solid metal through and through, Monel does not chip or peel. It has no surface coating to wear away. When you recommend Monel, you are offering clients a solid metal with solid advantages—and every one adds up to increased protection, long service life and reduced maintenance expense.

NEW CONTROL

In these sterilizers, your clients also get American's new "Cyclomatic Control." It is designed not only to simplify operation, but to guarantee complete sterilization. Nurse merely loads, sets timer and selector, turns starting valve. The entire sterilizing cycle is automatically governed. When buzzer sounds, nurse turns valve to "off" position, and removes sterilized load. There's no lost motion, no guesswork, no wasted time.

GET ALL DETAILS

For full information about Monel pressure-type sterilizers with "Cyclomatic Control," write AMERICAN STERILIZER COMPANY, Erie, Pa.



Monel
...A Good Bet for Sterilizers

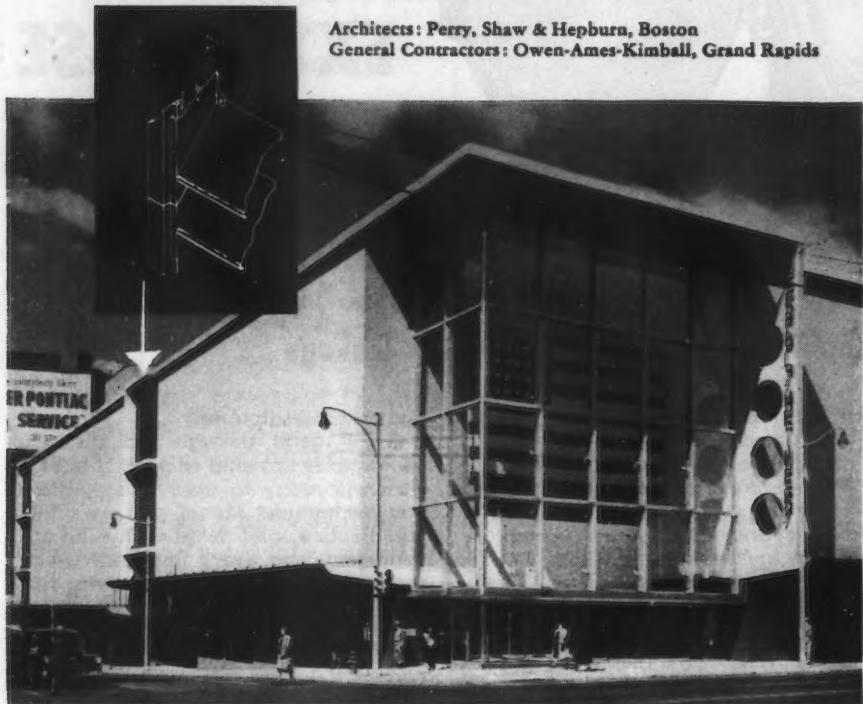
THE INTERNATIONAL NICKEL COMPANY, INC.
67 Wall Street, New York 5, N. Y.

Grand Rapids' magnificent new store takes pride in its significant details of Seaporcel*

Practical beauty where it counts is Seaporcel's contribution to this impressive temple of business, designed by Mr. George L. Ely, of Allied Stores, Boston.

For the distinctive sign facia and the modern-as-tomorrow louvres on both sides of the structure, the choice was Seaporcel Architectural Porcelain Enamel, unsurpassed for beauty of appearance - low installation and maintenance cost - permanence - resistance to weather - and the integrity of its manufacturer.

Architects: Perry, Shaw & Hepburn, Boston
General Contractors: Owen-Ames-Kimball, Grand Rapids



A new "Fact Sheet" is just off the press, giving in isometric detail specifications and construction of these ventilation and air conditioning louvres. A copy is yours for the asking.

seaporcel metals inc.

28-02 Borden Avenue, Long Island City 1, N.Y.
STillwell 6-4900

See our catalog in SWEET'S 6d

3

For More
Information —
Use This
Form

Member, Porcelain
Enamel Institute

*Reg. U.S. Pat. Off.

SEAPORCEL METALS INC. 28-02 Borden Avenue, Long Island City 1, N.Y.

Please send me Fact Sheet on Ventilation Louvres _____
Send me General Catalogue and other information _____

NAME _____

COMPANY _____

ADDRESS _____ CITY _____ STATE _____

THE RECORD REPORTS

(Continued from page 156)

housing and architecture for the Columbia University Summer session of 1950.

- Lehigh University will hold its second Product Design Seminar June 26 to July 21, 1950, again in cooperation with the Society of Industrial Designers.

Fellowships

- The 19th competition for the James Harrison Steedman Memorial Fellowship in Architecture will take place this Spring. The Fellowship is an award of \$3000 for a year of study and travel in foreign lands.

The competition is open to all graduates of accredited architectural schools in this country who have had at least one year of practical work in the office of an architect, including one year's residence in St. Louis, Mo.

The competition consists of a 15-hour preliminary sketch followed by a six-week development period. The preliminary exercise will be held on Saturday, Mar. 4, at the Washington University School of Architecture, or, in the case of candidates living outside St. Louis, during the same hours under duly approved conditions.

Application blanks may be obtained from the School of Architecture, Washington University, St. Louis, Mo. They must be filled out and returned before Feb. 18, 1950.

- Applications for the Lowell M. Palmer Fellowship in Architecture at Princeton University will be received by the Secretary of the School of Architecture until March 1.

The purpose of the Fellowship is to assist a student of unusual promise in the advanced study of architecture at Princeton, including research in architectural composition at the Architectural Laboratory, and the opportunities offered through the close affiliation of the School of Architecture, the Bureau of Urban Research, the Department of Urban Research, the Department of Art and Archaeology, and the other graduate departments of the university.

The Palmer Fellow is exempt from tuition fees and will receive a stipend of \$700 during his year of residence at Princeton. He will be entitled to all the privileges of a Fellow of the University, including residence in the graduate college buildings.

(Continued on page 160)

**NOW... another exclusive
CURTIS achievement**

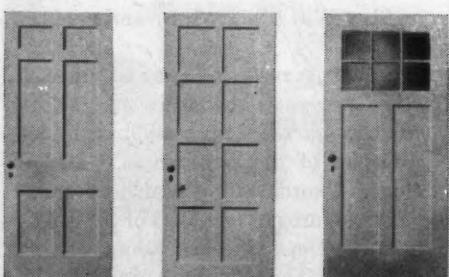
the NEW PRESPINE

Now Curtis adds *another* major advantage to Prespine—the all-wood panel material that provides new value in Curtis doors, cabinets and other woodwork! Today, by an exclusive Curtis process, the beautiful natural grain of ponderosa pine is accurately reproduced on Prespine. Here is another example of the way Curtis research constantly enhances woodwork beauty and utility.

Remember, Prespine is available only as used in the production of Curtis Woodwork . . . and at no extra cost. Read about its advantages below—then mail the coupon for additional information.

Here's What's New About Prespine!

1. Made by an exclusive Curtis process that duplicates the natural grain of ponderosa pine on Prespine.
2. Prespine can be lightly sanded before finishing, if necessary.
3. Prespine can be painted, stained, shellacked, waxed, lacquered, varnished, enameled or blondered.
4. Prespine can be cleaned or washed after it is finished.
5. Prespine is fadeproof and lightproof. It has been subjected to rigid tests which prove its lasting durability.
6. Prespine, when it is finished, is weather-
- resistant— withstands rain, snow, excessive humidity or sharp changes in temperature.
7. Prespine can be quickly and economically finished by skilled or semi-skilled labor.
8. Because of the nature of Prespine, there can be no grain raising or consequent checking or blistering of the finish.
9. Prespine door panels can be replaced as easily as ordinary door panels.
10. All exterior Curtis Prespine doors are treated with toxic-water repellent solutions to resist termites and decay.



Prespine is used in most Curtis flat panel door models, including interior, exterior and garage designs.

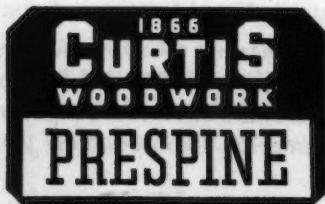


Note the remarkable, natural grain appearance of Prespine

PLUS

these famous Prespine features

Made of finely divided wood by an exclusive Curtis process. Prespine panels withstand warping, shrinking and swelling. Prespine resists heavy impact blows . . . won't mar, dent or scratch readily . . . won't splinter or chip. It has superior rigidity . . . provides an ideal bond for paint or stain.



Curtis Companies Service Bureau
AR-2P Curtis Building, Clinton, Iowa

Gentlemen: I want to know more about Prespine as used in Curtis Woodwork. Please send additional information.

Name.....

Address.....

City..... State.....

(Continued from page 158)

Applicants must be citizens of the United States, holders of a bachelor's degree, less than 27 years of age on Oct. 1, 1950, and in good physical condition.

In awarding the Fellowship, special emphasis will be placed on (1) achievement in architectural design; (2) personal qualifications; (3) scholastic record; (4) professional experience.

WITH THE A.I.A.

Gold Medal Award

Sir Patrick Abercrombie, M.A., Fellow of the Royal Institute of British Architects and internationally known British architect and town planner, will receive the Gold Medal of the American

Institute of Architects at the 82nd A.I.A. convention in Washington, D. C., next May 10-13.

Sir Patrick, who will be the sixth foreign architect to receive the Gold Medal, highest honor the Institute can bestow, was the Royal Gold Medallist in 1946. For the past 11 years he has been professor of town planning at the Bartlett School of Architecture, University College, London. Earlier, he was for 20 years professor of civic design at Liverpool University.

In announcing the selection of the Board of Directors, Ralph Walker of New York, A.I.A. president, said the award was made in recognition of Sir Patrick's "distinguished contribution to the profession of architecture and regional planning."

A.I.A. Honor Awards

Awards for distinguished accomplishment in three classes of buildings—residential, commercial and religious—will be made in the second annual nationwide program of honor awards for current work of the American Institute of Architects.

All entries must be buildings designed by registered architects practicing professionally in the United States, although the buildings may have been erected either in this country or abroad. Buildings must have been erected since Jan. 1, 1945.

Entries, which must be prepared and submitted according to mandatory rules of the program, must be submitted directly to national headquarters of the American Institute of Architects and shipped on or before April 26.

A First Honor Award and a number of Awards of Merit in each classification will be selected by three separate national juries, one for each classification. Announcement of awards will be made on May 11 at the 82nd convention of the A.I.A.

All entries receiving awards, and such other entries as the juries may select, will become A.I.A. property for exhibits.

Copies of the program of National Honor Awards are available to architects who are not members of the A.I.A. from the Department of Education and Research, The American Institute of Architects, 1741 New York Ave., N. W., Washington, D. C.

(News continued on page 162)



THIS MAN IS PAID TO HELP ARCHITECTS AND THEIR ENGINEERS!

He is a specialist in planning and engineering RCA Sound Systems for every type of building: Schools . . . Hospitals . . . Hotels . . . Factories and Offices . . . Churches . . . Department Stores . . . Airports and Terminals . . . Warehouses and Garages . . . Auditoriums . . . Recreational Centers . . . Institutions . . . Stadiums . . .

No matter what size or type of job you have on your drawing boards, you can get practical help from RCA in fitting RCA Sound Systems to your architectural plans. No obligation, of course.

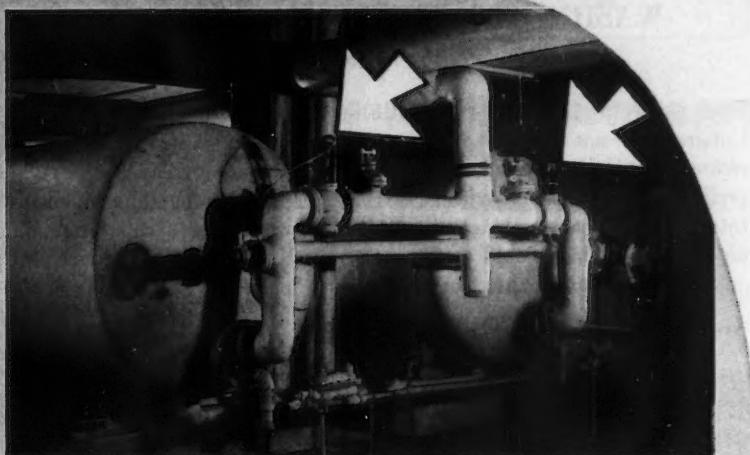
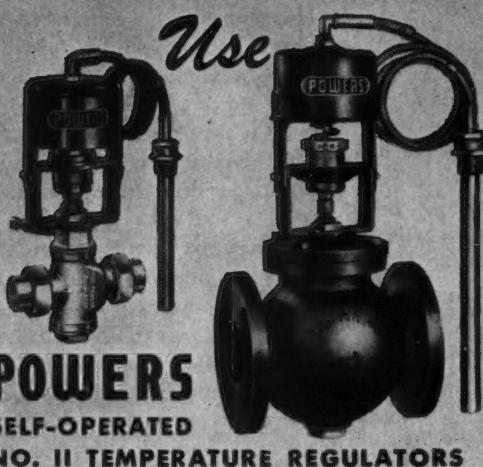
Contact your nearest RCA Sound System distributor or write: Sound Products, Department 3B, Radio Corporation of America, Camden, New Jersey.

SOUND PRODUCTS
RADIO CORPORATION of AMERICA
ENGINEERING PRODUCTS DEPARTMENT, CAMDEN, N.J.

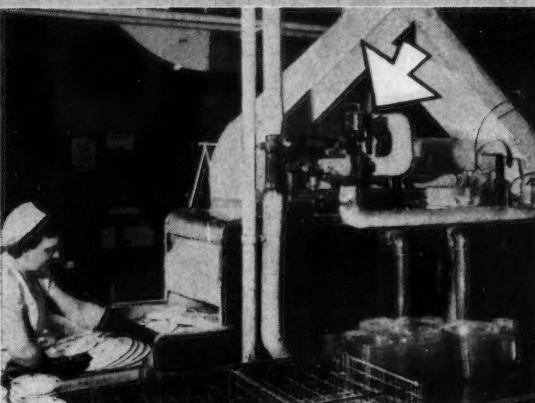
In Canada: RCA VICTOR Company Limited, Montreal



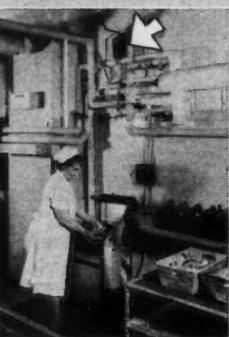
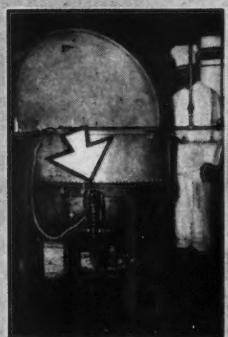
FOR THE **RIGHT** TEMPERATURE



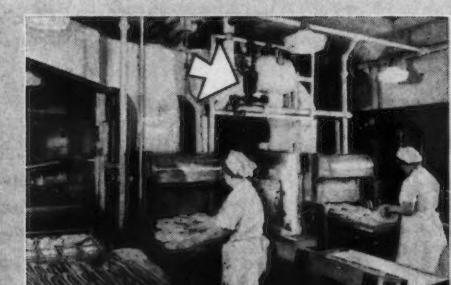
Above: WATER HEATERS at Northwestern University



Above: STEAM TABLE—Center: DISHWASHER—Right: COFFEE URN—all at Marshall Field & Co.



COOKING KETTLE • Above: SILVERWARE WASHER
Below: DISHWASHER—both at Marshall Field & Co.



(11KT)

POWERS

No. II Regulators Save Fuel—Prevent Over-heating!

Quickly Pay Back Their Cost in economies of time, labor and fuel saved.

Most Simple and Dependable type of regulator made for uses shown here. Special Features: Has over-heat protection; valve stem lubricator and oilite bearing on temperature adjustment. Often gives 10 to 25 years' service.

Contact our nearest office for prices and help in selecting the right type and size for your requirements. There's no obligation.
 CHICAGO 14, ILL., 2752 Greenview Ave.—NEW YORK 17, N. Y.,
 231 E. 46th St.—LOS ANGELES 5, CALIF., 1808 W. 8th St.—
 TORONTO, ONT., 195 Spadina Ave.

THE POWERS REGULATOR CO.

OFFICES IN OVER 50 CITIES • SEE YOUR PHONE BOOK

Over 55 Years of Water Temperature Control

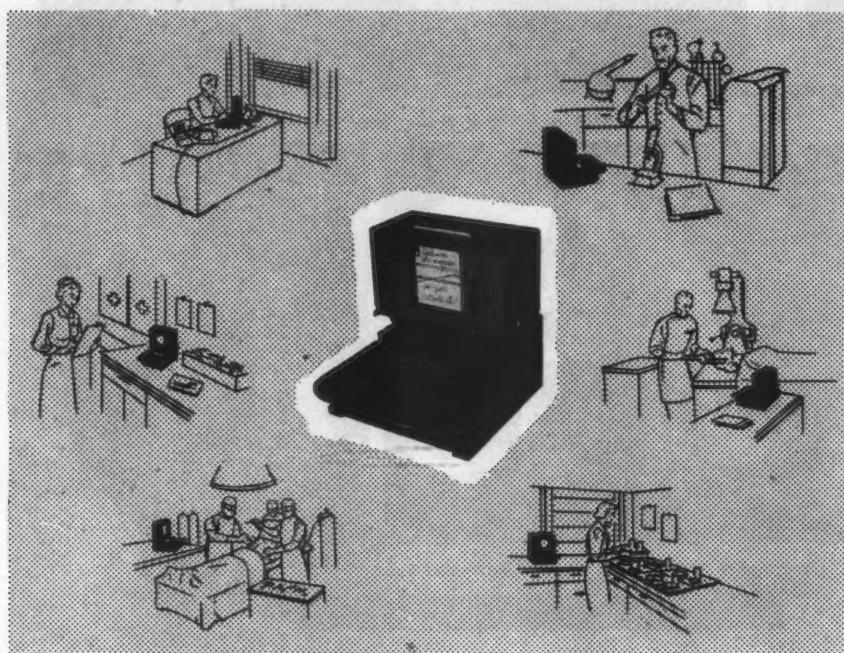
THE RECORD REPORTS *(Continued from page 160)*

WASHINGTON NEWS by Ernest Mickel

The preelection session of the 81st Congress is not likely to upset the clearest conclusion reached in all the preliminary prophetic writings — that total volume of construction put in place during 1950 would not vary to any great degree from that of 1949. All

the fulminations on Capitol Hill this season will not alter the outlook for a definite increase in the public work ratio.

Programs determined in 1949 will be worked out this year and thereafter. The divergent trends in public and private construction will carry over.



THE ADMINISTRATOR DARED THE ARCHITECT . . .

"Plan our hospital so that late charges can be sent from any department to the business office in a moment or two."

— And, the architect did without altering his design!

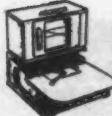
He simply called on the TelAutograph Corporation. Within a short time he had all the information he needed to fit a TelAutograph Telescriber System into the plans.

This system of transmitting handwritten messages over wire to one or many distant positions has been used for years in hospitals throughout the United States and Canada. Inter-departmental communication in these hospitals is instantaneous . . . and in handwriting.

Of course, TelAutograph telescribers are used in all types of business and industry. Available for your use is literature both of a specific and general nature. Address your requests to Dept. A-1.

TellAutograph CORPORATION

16 West 61st Street, New York 23, N. Y.



"Handwritten Messages Deliver
Themselves . . . While You Write"



Economists in General Services Administration say public construction in 1950 can account for as much as \$6 billion out of a total \$19 billion volume. Such a percentage would bring the public construction ratio to a little more than 31 per cent. In 1949 it was 27 per cent.

Significantly then, public construction now is just beginning to reach the same range as the average proportion during the 20-year period from 1920 through 1939. Obvious reasons have delayed this pick-up on public building. As stressed on every occasion by General Services personnel, depression, war and postwar enigmas piled up a hitherto unimagined backlog of need; need for municipal utility improvements, for new schools, churches, hospitals, public buildings and every type of construction needed to serve an expanding economy. Increasing population is another source of pressure.

Wartime and later cross-migrations have added to the demands. New developments for housing mushrooming on the fringe of metropolitan areas continue to create a vast potential for architectural and engineering services. As GSA puts it, full employment and a very high national income have resulted in an accepted higher standard of living. All this has added to needs already backed up by long postponement of construction.

What's being done? Private and public sources acknowledge that present and projected accomplishments fall far short of meeting this piled-up construction need; a reservoir of demand that requires billions of dollars in public funds and private investment. But already Congress is talking economy — and will practice it before the current session ends. The money to cover loans to states and cities for advance planning of public works has been allocated, the public housing program is pushing ahead. These, however, appear to be small stabs at the larger problem.

Housing Legislation

There was a call, meanwhile, from both private and government people for a 1950 betterment of the record number of approximately one million housing units added to the country's inventory last year. Such an increase, if it comes about in substantial proportions, in turn must be reckoned with in terms of

(Continued on page 164)



MELLON-U. S. STEEL BUILDING
Pittsburgh, Pennsylvania
HARRISON & ABRAMOVITZ, Architects
WILLIAM YORK COCKEN, Associate Architect
TURNER CONSTRUCTION CO., Builder

RIGHT. At the Commercial National Bank in Shreveport, La., (McKim, Mead & White, architects; S. G. Wiener, Asso. Archt.) Q-Floor is installed. It is welded directly to the beams over which light-weight concrete fill is placed to provide a level surface. The cells are available for the distribution of electrical and telephone wiring. Changes can be made quickly.

H. H. ROBERTSON COMPANY
2404 Farmers Bank Building, Pittsburgh 22, Pa.

Factories in Ambridge, Pa., Hamilton, Ont., Ellesmereport, England
Offices in 50 Principal Cities



World-Wide Building Service

ROBERTSON Q-FLOOR

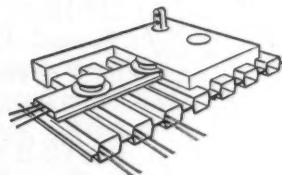
will be used in
PITTSBURGH'S NEWEST SKYSCRAPER



Soon to rise above Pittsburgh's Golden Triangle is the new Mellon-U.S. Steel Building. The owners are building wisely for they have insisted on Robertson Q-Floor, an element in the structure that will contribute most to keeping the building electrically modern, and free from Office-Building-Old-Age.

Q-Floor is a steel cellular sub-floor welded to the structural frame. It goes in quickly and immediately becomes a working platform for all trades. The clean, dry construction results in continuous work even in freezing weather and eliminates delays due to older-fashioned construction methods. Suspended ceiling, ducts, and other mechanical features of the building hang from the underside of the Q-Floor.

The steel cells of Robertson Q-Floor function as a super-efficient underfloor electrical duct system. Outlets for all services are available exactly where needed. Desks, partitions, business machines can be located and relocated with complete freedom. Q-Floor will keep the Mellon-U. S. Steel Building in step with every new electrical development the future brings.



THE RECORD REPORTS

WASHINGTON

(Continued from page 162)

still more public works construction to service it.

The President's messages to Congress confirmed what was already known; that the Administration seeks modification of housing laws, new legislation to encourage more housing construction for middle-income families, and a 50 per cent increase in total home output.

Architects are pointedly concerned in the current effort by federal housing groups to increase the size of the so-called economy house. Efforts are being made to change the law in the direction of larger guarantee percentages (but not more actual money) for three-bedroom houses. This carries the incentive changes made in the National Housing Act last summer a step further. The Housing and Home Finance Agency remains convinced that there is a vast "untapped" sale market for home builders in the \$7000 to \$9000 range. Smaller down payments are an objective as well.

(For the record, HHFA considers a middle-income family as any with income from \$2700 to \$4400 a year. Assuming 20 per cent as a fair payment for shelter costs, the range of payment for these families then is from \$45 to \$73 per month, a median of about \$59 or \$60. The formula is applicable to urban families only, and according to the 1948 census an estimated one-third of all city families now falls in this category.)

When the die has been cast on 1950 legislation there still will be a program of Federal Housing Administration home mortgage insurance. This is certain in spite of the fact the HHFA is recommending the final retirement of Sec. 608 (Title VI) as such. Operating under continued reprieves since the war, this program on large-scale rental housing developments probably will be retained in its essential features. A new amendment under Sec. 207, Title II, has been suggested to catch the remnants of 608.

The broader plan for a change in the present housing law contemplates a private capital cooperative which would entail, again, the federal backing of private money investments. The last extension of Title VI, Sec. 608 mortgage insurance carried the plan through March 31. Unless Congress gets bogged

(Continued on page 166)

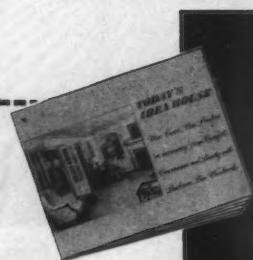


...the touch THAT TELLS THE STORY!

One touch of your finger will tell you why wood windows maintain their widespread popularity.

For wood is a natural insulating material. It retards transmission of heat or cold, minimizing dimensional change due to temperature variation. Ponderosa Pine's low density, smooth texture, and uniform grain provide a natural bond for all finishes. Moderate in cost, and available in modular standard sizes in a wide variety of styles, Ponderosa Pine windows are correctly proportioned and precision made for quick installation. These windows are available toxic preservative treated in accordance with tested industry standards. Preservative treatment of your Ponderosa Pine windows gives added resistance where staining, decay, insect attack or humidity are problems.

for friendly living



Ponderosa Pine WOODWORK

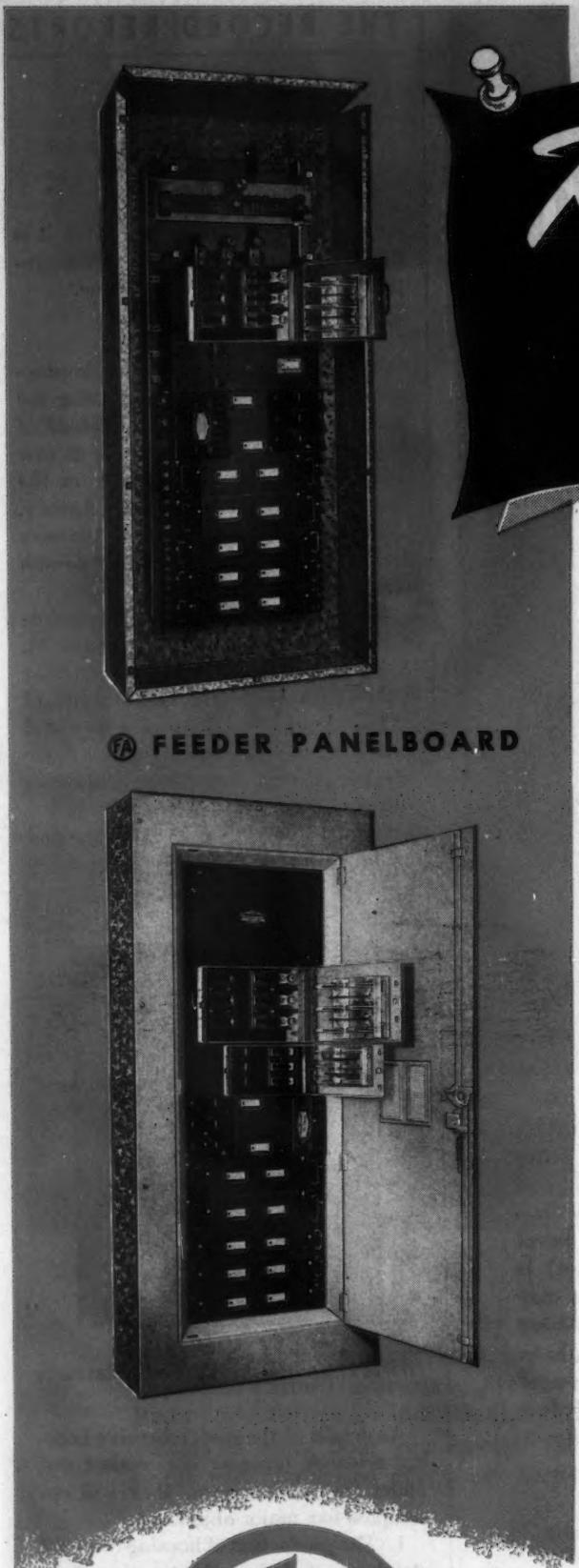
Ponderosa Pine Woodwork
SAR-2, 38 South Dearborn Street
Chicago 3, Illinois
Please send me a copy of "Today's Idea House."
(Please print).

Name.....

Address.....

City..... Zone..... State.....

Your copy of a helpful booklet on Ponderosa Pine windows and doors is yours for the asking.



FA FEEDER PANELBOARD

Re-designed inside and out

LESS SPACE IS REQUIRED for the same panel-board requirements in the *re-designed* FA FEEDER PANELBOARD . . . without sacrificing such popular FA features as generous wiring space and ease of installation.

This improved, compact FA FEEDER PANELBOARD is built of standardized units and assembled as required for specific application. Four standardized widths, 10 standardized heights and 3 standardized depths of boxes meet any requirement. Boxes are shipped from stock . . . with removable ends to permit drilling conduit openings on the job. Panels are readily installed after boxes are in position.

Two dependable FA Switches . . . the FA PULFUZ-SWITCH and the FA KLAMPSWITCHFUZ . . . make these feeder distribution panelboards the finest in safety and efficiency. Both types combine switch and fuse in one unit so that current is OFF when the door is opened, or the fuse carrier removed. This makes replacement of fuses safe . . . quick . . . simple.

In operation, the switch blades make pressure contact with the fixed switch parts, assuring full current-carrying capacity. Silver-plated contact parts insure low resistance to current flow, and reduce heating.

FA PULFUZSWITCH capacities: 30, 60 and 100 amps., 250 volts AC or DC; 30 and 60 amps., 600 volts AC, 2, 3 and 4 pole.

FA KLAMPSWITCHFUZ capacities: 30 to 600 amps., 250 volts AC or DC; and 30 to 200 amps., 600 volts AC in 2, 3 and 4 pole types, single or double throw.

For more information about the *re-designed* FA FEEDER PANELBOARD, talk it over with your FA Representative (he's listed in Sweet's).



Frank Adam Electric Co.
ST. LOUIS 13, MISSOURI
Makers of BUSDUCT • PANELBOARDS • SWITCHBOARDS • SERVICE EQUIPMENT • SAFETY SWITCHES • LOAD CENTERS • QUIKHETER

THE RECORD REPORTS

WASHINGTON

(Continued from page 164)

down with a civil rights filibuster, it is likely floor action on new housing proposals will come before that time.

Progress In Research

There were two important developments on the research front during the past month: Dr. Richard U. Ratcliff of Wisconsin University took over as new Director of Housing Research in the Housing and Home Finance Agency, and the Building Research Advisory Board held its first conference — on weather effects.

Said Dr. Ratcliff after his appointment by Administrator Raymond M. Foley: "It is trite but true to say that Public Law 171 — the Housing Act of 1949 — marks the dawn of a new and promising day in housing research." He sees its greatest importance in the recognition of the role of research in the attempt to provide a decent home and a suitable living environment for every American family.



HHFA's new Director of Housing Research

As details of the comprehensive housing research program are worked out under the new director, they will encompass five major objectives:

1. The production of housing of sound standards of design, construction, livability, and size for adequate family life.
2. The reduction of costs of housing without sacrifice of such sound standards.
3. The use of new designs, materials, techniques, and methods in residential construction, the use of standardized

(Continued on page 168)

The advertisement features the word "MICHAELS" in large, bold, serif capital letters at the top left, partially cut off by the edge of the page. Below it, the word "Astragals" is written in a large, stylized, lowercase sans-serif font. Two technical line drawings illustrate the products. The top drawing, labeled "Type A", shows a rectangular astragal being applied to the bottom of a door. The bottom drawing, labeled "Type E", shows a more complex, multi-part astragal being applied to the bottom of a double door. Both drawings include cross-hatching to indicate depth and perspective.

Write today for information and prices on Michaels Adjustable Astragals. Made of extruded bronze, aluminum or nickel, they are simple, practical, rugged, easily installed and adjusted, and available in several styles. Two are shown above. Type A (top illustration) may be applied to either wood or hollow metal bevel doors. Also used as a stop bead. Type E (lower illustration) is for bullnose hollow metal or wood double doors. Both types may be used at the bottom of doors. Michaels Astragals help keep doors closed tightly . . . eliminate drafts and air currents . . . keep out dirt and dust. Write for details. Astragals are only one of many items in the Michaels line. So whatever building product you need, if it's made of metal, we may have it or can make it.

MICHAELS PRODUCTS

Bank Screens and Partitions
Welded Bronze Doors
Elevator Doors
Store Fronts
Lettering
Check Desks (standing and wall)
Lamp Standards
Marqueses
Tablets and Signs
Name Plates

Astragals (adjustable)
Stair Railings (cast and wrought)
Wrought and Cast Radiator Grilles
Grilles and Wickets
Kick and Push Plates
Push Bars
Cast Thresholds
Extruded Thresholds
MI-CO Parking Meters
Museum Trophy Cases

The MICHAELS ARTS BRONZE CO., INC., 234 Scott St., Covington, Ky.

Member of the National Association of Ornamental Nonferrous Metals Manufacturers

NOW!

Give Your Clients CUSTOM-DESIGNED RUBBER TILE FLOORS



Exclusive
THEMETILE
only available in

RUBBER TILE
by the makers of
KENTILE.

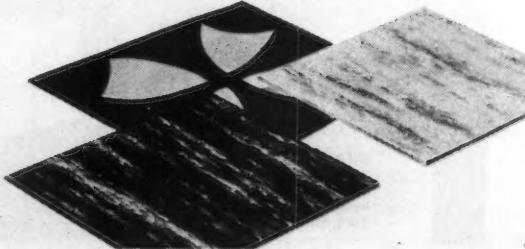
★ Only Rubber Tile by the makers of Kentile offers these decorative, low-cost factory-made ThemeTile inserts to give you unlimited opportunities for individual, distinctive designs in every floor you specify! Beautiful colors and marbleized effects are harmonized

a leading color expert. In every way, in appearance and practical advantages, this new line reflects the latest developments in rubber tile manufacture. You'll find it pays dividends in client satisfaction to specify beautiful, long-wearing Rubber Tile by the makers of Kentile.

KENTILE • KENCORK • RUBBER TILE

For further information contact the office nearest you:

DAVID E. KENNEDY, INC., 58 Second Avenue, Brooklyn 15, N. Y.
350 Fifth Ave., New York 1, N. Y. • 705 Architects Bldg., 17th and Sansom St.,
Philadelphia, Pa. • 1211 N.B.C. Bldg., Cleveland 14, Ohio • 225 Moore St., S.E.,
Atlanta 2, Ga. • Kansas City Merchandise Mart Inc., 2201-5 Grand Ave., Kansas
City 8, Mo. • 1440 11th St., Denver 4, Colo. • 4532 South Kolin Ave., Chicago
32, Ill. • 1113 Vine St., Houston 1, Texas • 4501 Santa Fe Ave., Los Angeles 58,
Calif. • 95 Market St., Oakland, Calif. • 452 Statler Bldg., Boston 16, Mass.



THE RECORD REPORTS

WASHINGTON

(Continued from page 166)

dimensions and methods of assembly of home-building materials and equipment, and the increase of efficiency in residential construction and maintenance.

4. The development of well-planned, integrated, residential neighborhoods and the development and redevelopment of communities.

5. The stabilization of the housing industry at a high annual volume of residential construction.

It is clear that under Dr. Ratcliff's leadership the research effort will take the long view; the program will not proceed too fast for its own good. He means to put first things first, to identify and evaluate the problems of housing before defining even the fundamentals of investigating these problems. Also, through his first remarks following the appointment runs the philosophy of further economies in home production. Besides financial costs, the director plans to cope with social costs which include discomfort, inconvenience, irritation and discontent, misery, ill health, disease and loss of working efficiency, family disruption and disorganization, group tensions and conflict.

A large order, any way it is interpreted.

Future operations of the building industry will be affected as well by the steps outlined by the BRAB under direction of William H. Scheick. Six specific projects are to be started immediately and the weather conference already has given concrete evidence of the Board's programs. The six specifics are:

1. A survey to develop a list of urgent problems of the building industry susceptible to solution by research. This information will be sought by a canvass of research agencies, trade and professional organizations, and technical and research personnel in the industry.

2. A series of research correlation conferences to bring together those actively engaged in research along specific lines in order to explore and evaluate subjects, review accomplishments and chart future action. (The weather conference is an example.)

3. Initiation of detailed analysis of "master outline" of building research and related fields to clarify the present

(Continued on page 170)



For greater safety under foot,
in your plant and on your products

Inland 4-Way Safety Plate®



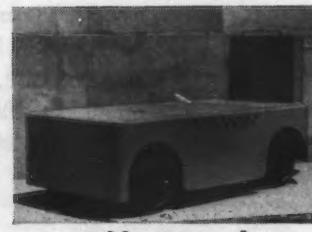
Safe Footing



Easy Cleaning



Firesafe



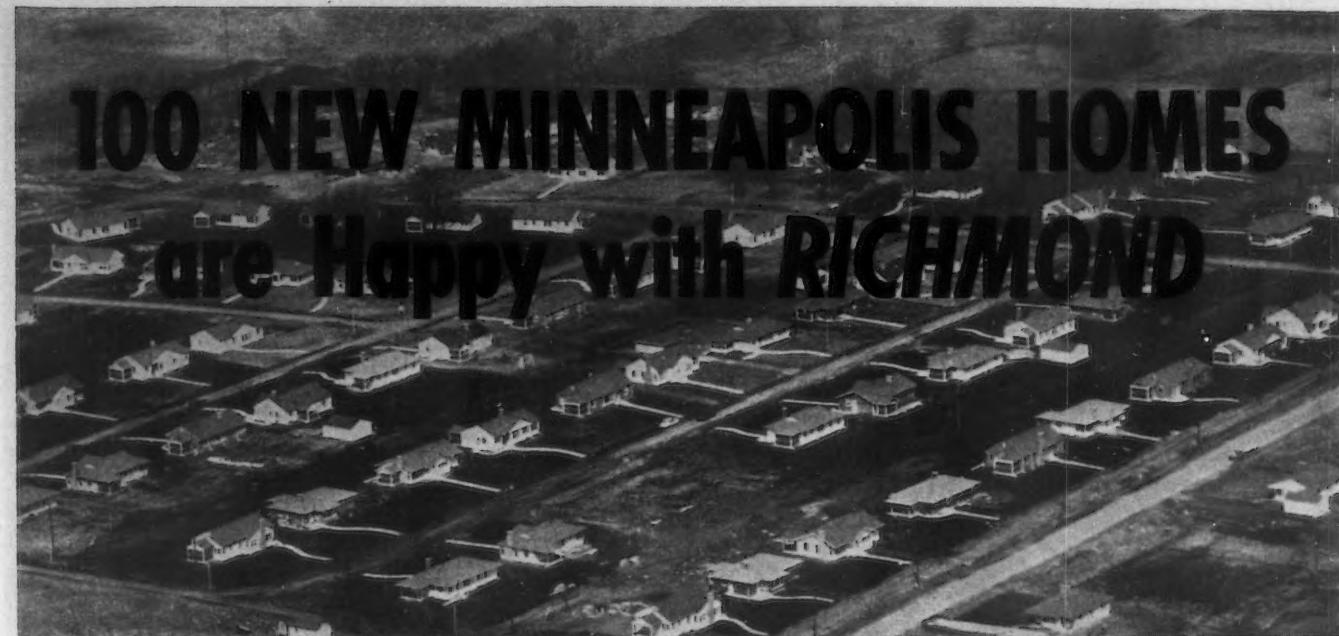
Adds Strength



INLAND STEEL COMPANY, Dept. AR20
38 So. Dearborn St., Chicago 3, Ill.
Sales Offices: Chicago, Davenport, Detroit,
Indianapolis, Kansas City, Milwaukee, New
York, St. Louis and St. Paul.

New Bulletin with New Ideas—Just Out! Bulletin F1. Complete engineering and application data. Send for it!

STOCKED BY LEADING STEEL WAREHOUSES

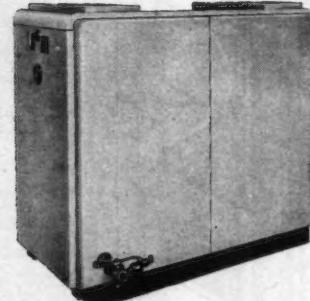


100 NEW MINNEAPOLIS HOMES ARE HAPPY WITH RICHMOND

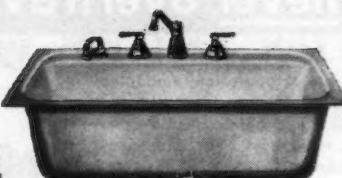
Aerial view of Woodlawn Park, Minneapolis. These 100 new homes built by Wilkorp, Inc. all have Richmond Plumbing Fixtures and Richmond Gas-Fired Winter Air Conditioners—distributed by Globe Plumbing Supply Company. Plumbing installed by Tabaka Plumbing—heating installed by Welter Heating Company.



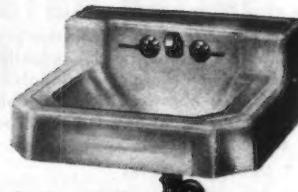
The Richmond Phoenix 2-piece,
close-coupled closet
comb, plate G-217



The Richmond
Stratton flat-rim sink,
plate 2110



The Richmond Breslin
recess bath, plate 225



The Richmond Lorain
shelf-top lavatory,
plate 837



Richmond Plumbing Fixtures and Winter Air Conditioner Installed

Richmond proved a wise choice for these fine new homes in Minneapolis's Woodlawn Park Section. The four Richmond Plumbing Fixtures and the Air Conditioning Unit installed in each of the 100 homes bear the famous Richmond stamp of quality—quality of appearance and quality of performance.

Whether it's a single replacement or a large development, you can be sure when you select Richmond. You can be sure of efficiency in operation and beauty of design. You can be sure of satisfied clients—happy with Richmond serving their plumbing and heating needs.



RICHMOND

RICHMOND RADIATOR CO.—AFFILIATE OF REYNOLDS METALS CO.



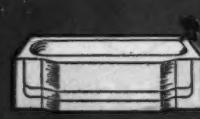
See your wholesaler or Mail Coupon Today.



Richmond China



Gas Heater



Enclosed Cast Iron Ware



Winter Air Conditioners
Gas—Cast iron or steel
Oil—Steel

Richmond Radiator Company AR-2
19 East 47th St.
New York 17, N. Y.

Please send me the latest literature and information on the Richmond line of fine plumbing fixtures. No obligation, of course.

Name _____

Company _____

Address _____

THE RECORD REPORTS

WASHINGTON

(Continued from page 168)

picture of building research. This will necessarily be a long-term project.

4. Encouragement of government agencies concerned with building research to avail themselves of the advisory services of BRAB.

5. Cooperation with builders' and contractors' associations to promote field tests and demonstrations of research results as a method of speeding up the application of technological advances.

6. Development of an effective program of publication and information.

Prefabs

As Congress convened, there was a possibility efforts would be made to

revive the plan to establish a \$25 million loan fund for supporting distribution of prefabricated housing—the so-called interim financing loans. This plan was defeated in the last Congressional session, but there was strong talk it might be proposed again.

Simultaneously, the Reconstruction Finance Corporation said it would make no more production loans to Lustron Corp. at Columbus, O.; at least until it might be ordered to do so by Congress. This word came just as Lustron was preparing to ask for an additional loan of \$12.5 million to get it out of the red.

The whole Lustron inquiry appeared to be coming quickly to a head. Rep. Albert Cole (R-Kans.) was pressing his advantage after inaugurating a full investigation last August. He wrote the federal lending agency asking for a full accounting of the Lustron loans. He will not let the matter cool. Meanwhile, RFC's legal staff had requested Lustron to file an explanation as to how it hopes to get out of the current contretemps.

Other organized prefabbrs never have been too enthusiastic over the production loan idea. Interim financing would be more acceptable.

SHORTS

• The Army has been perfecting an all-plastic house with the advantage of more durability for storage. Packaged utilities, also worked out for manufacture from plastics, have been designed. While referred to as a challenge to the plastics industry because of a huge potential market, it was acknowledged extremely high production costs will cool industry interests for some time to come.

• The Defense Housing Commission, a three-man team appointed by Defense Secretary Johnson to study military housing needs, has returned from an inspection trip in Alaska.

• A graphic-arts mechanic at the Norfolk Naval Air Station has devised a new method for speedy reproduction of line drawings to scale by photo. Reversing the normal practice, the rear of the copy camera is made moveable and lens remains fixed. Graduated scales are installed on the bed for use in measuring size of copy desired. This makes it possible to turn out copies quickly and

(Continued on page 172)

THE Sedgwick ROTO-WAITER

...a new kind of fully automatic
electric dumb waiter
that never overtravels

FOR TWO-STOP INSTALLATIONS . . . the new Sedgwick Roto-Waiter, with its unique endless chain drive principle of operation, embodies those features of safety, dependability and economy that make it the ideal dumb waiter for schools, hospitals, hotels, restaurants, stores, banks, libraries, factories, clubs, residences and other commercial, institutional and industrial buildings.

Sedgwick Roto-Waiters . . .

1. Never overtravel
2. Are completely factory assembled and tested
3. Operate automatically, safely with push-button control and doors interlocked.
4. Require only minimum clearances
5. Have an overload safety device for safe operation
6. Cut costs with simplified motor and control equipment
7. Require no heavy load-bearing supports, except at bottom
8. Are easy to install

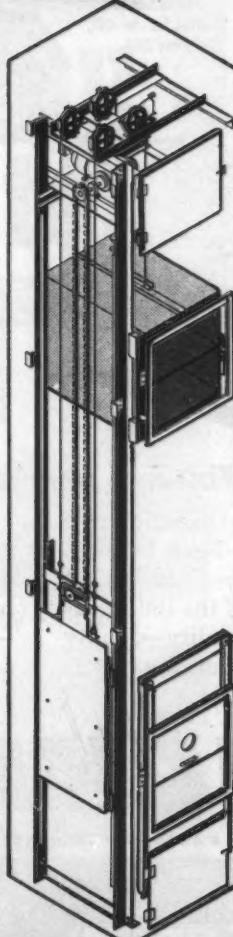
Dimension table lists three standard counterweighted Roto-Waiters. A Sedgwick uncounterweighted Roto-Waiter (with car size 24"x24" x36", 150 lbs. capacity) is also available when the dumb waiter is to be installed for undercounter use.

STANDARD ROTO-WAITER DIMENSIONS			
Size No.	2C	3C	5C
Capacity, lbs.	200	300	500
Car width, in.	24"	30"	36"
Car depth, in.	24"	30"	36"
Hoistway width, in.	33"	39"	45"
Hoistway depth, clear in.	27"	33"	39"
Hoistway depth, including doors, in.	29"	35"	41"

Remember, too—the Completeness of the Sedgwick Line
That Enables You to Meet Every Client's Requirement . . .

In addition to the Sedgwick Roto-Waiter, Sedgwick also builds Multi-Stop Electric Traction Dumb Waiters for three or more landings—with a wide selection of specially engineered control equipment and signal systems to suit individual service needs. Other Sedgwick Dumb Waiters—including both electrically and manually operated types—are likewise available in a wide range of sizes and capacities. Specify, too, Sedgwick Steel Dumb Waiter Doors for complete satisfaction.

Feel free to consult our engineers, who will be glad to work with you on any vertical transportation problem.



Sedgwick MACHINE WORKS
ELEVATORS · DUMB WAITERS · RESIDENCE ELEVATORS · STAIR-TRAVELORS
ROTO-VIWAITERS · SIDEWALK ELEVATORS · FREIGHT ELEVATORS · DUMB WAITER DOORS
THE MAXIMUM IN SAFETY . . . THE ULTIMATE IN ECONOMY — SINCE 1893



"New Marlite Patterns perfect for matched panel work"

—says registered architect **Charles J. Marr**,
past president, architect's society of ohio

"For the striking new Elk's Club at New Philadelphia, Ohio, we specified Marlite Wood Patterns for stairways, auditorium, ladies' lounge and cocktail bar. Faithfully reproducing the beauty and grain of fine selected woods, these versatile plastic-finished wall and ceiling panels provide a permanent surface that will eliminate costly periodic painting and redecorating—mighty important to any customer."

Learn how you can offer your clients smart, luxurious interiors at big new savings. Write for new Sample Folders showing wonderful design ideas possible with Marlite. You'll like this easy-to-work-with material. Mail coupon to: Dept. 205, MARSH WALL PRODUCTS, INC., Subsidiary of Masonite Corporation, Dover, Ohio.

Interiors in the beautiful new Elk's Club, New Philadelphia, Ohio, showing decorative possibilities of Marlite Wood Pattern wall panels.



MAIL TODAY!

Yes, I want to know more about Marlite. Please send my free set of Sample Folders.

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

FOR CREATING BEAUTIFUL INTERIORS

THE RECORD REPORTS

WASHINGTON

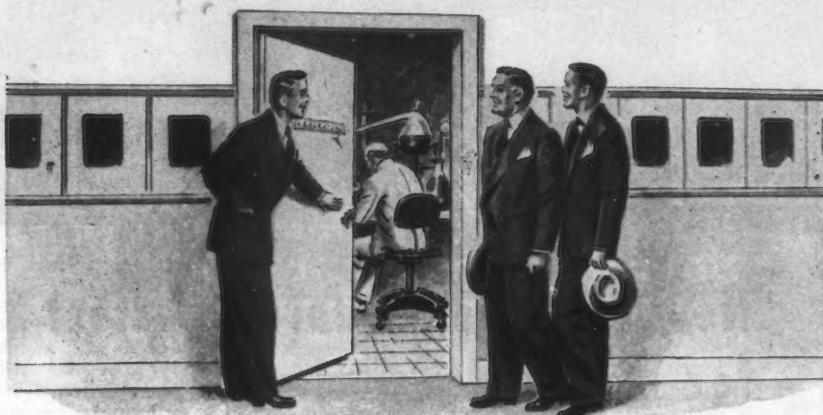
(Continued from page 170)

without unnecessary waste of film due to guesswork.

- All government agencies concerned have issued new orders on tie bids which will aid small business firms in getting

contracts in distressed employment areas. The orders determine award of contracts where equal bids have been received and where both large and small concerns are bidding.

- Basing point problems are due for more airing in Washington. Settlement of the proposed consent order in the steel case was still in question as the new year began. Furthermore, it was



"Our LABORATORIES are KEWAUNEE Equipped"

That's the short way of saying all that needs to be said about the very finest quality of material and workmanship, the most modern streamlined designs in matching units, richness of lasting finish, extra working conveniences and long lasting service.

Like the names on America's finest motor cars, you are always proud to say, "Our Laboratories are Kewaunee Equipped."

Be sure to see what "Kewaunee" offers you in extra values without extra cost when you need furniture equipment for any Laboratory, new or old.

Write for the Kewaunee Catalog. Specify whether interested in wood or metal. Address—

Kewaunee Mfg. Co.

C. G. Campbell, President

5046 S. Center St., Adrian, Michigan—Representatives in Principal Cities

pretty certain Commerce Secretary Sawyer's new interagency committee on competition and monopoly would get into the pricing practices and wind up with a conclusion or two regarding freight absorption and other aspects of the basing point problem. Congress will consider it again also.

- By December 1, 1949, the Federal National Mortgage Association had purchased FHA-insured or VA-guaranteed home mortgages in the total amount of \$767,211,000. It had outstanding contracts to acquire additional mortgages aggregating \$792,127,000. This secondary mortgage operation was well fixed financially for future functioning.

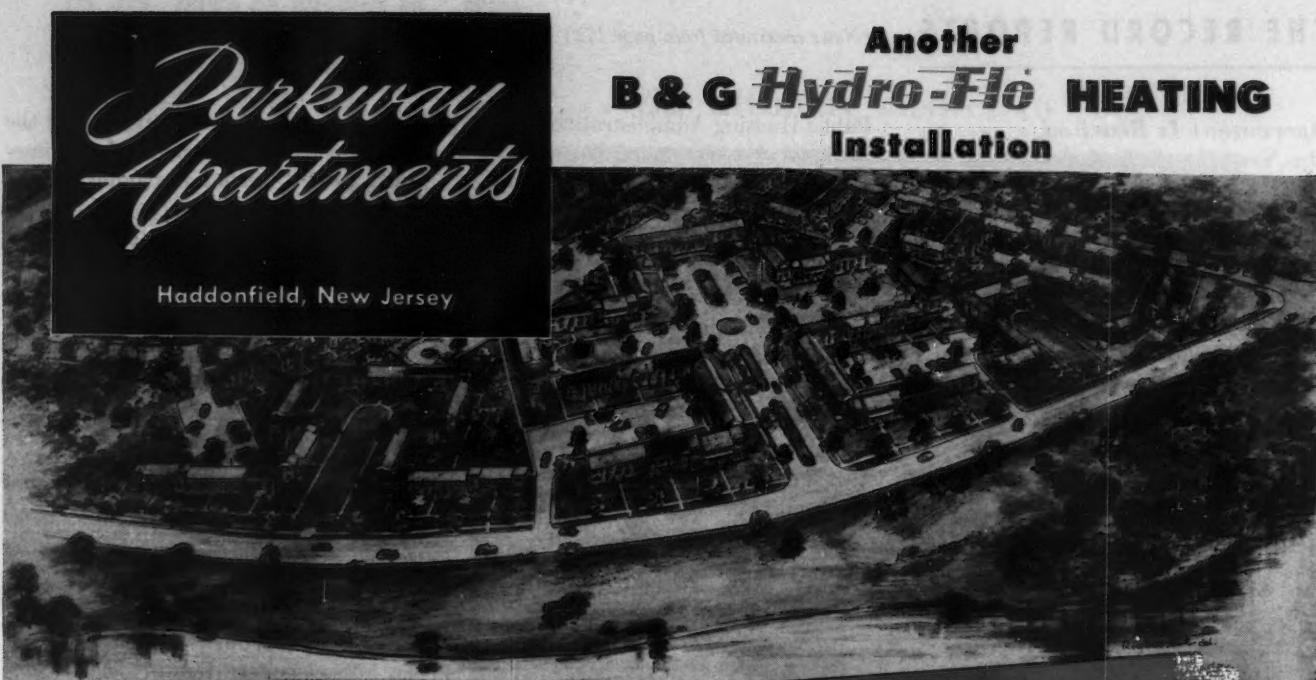
- The American Legion has launched a survey to prove or disprove the recent contention of former President Herbert Hoover that 70,000 federal hospital beds are unoccupied while efforts are made to build facilities for 50,000 additional beds. The Veterans Administration hospital construction program continues to operate on the curtailed schedule assigned a year ago in an order signed by President Truman.

- Tests of "rubber highways" are being made in Virginia. A small amount of natural rubber has been incorporated in asphalt highways and has been found to lessen skidding materially.

- It is estimated the prefabricated housing industry shipped 35,000 permanent units of wood construction in 1949. This is an increase of 16.67 per cent over the 30,000 shipped in 1948. Eighty-five companies were covered in a survey which resulted in the preliminary estimates.

- Civil Aeronautics Administration has issued new information on airport planning and design. The pamphlet, *Airport Design*, covers general principles of airport planning and design and emphasizes preliminary steps involving size and type of field to be constructed, site selection, airport layout, plans and specifications and details of design. Drawings show a variety of model airport layouts for both large and small fields. *Airport Design* discusses soils, paving, drainage, lighting, turfing and other items important to sound airport construction.

(News continued on page 174)



Parkway Apartments

Haddonfield, New Jersey

Another B & G Hydro-Flo HEATING Installation



Owner:
Parkway Apartments, Inc.
Haddonfield, N. J.
Architects and Engineers:
Edwards & Green
Camden, N. J.
Builder:
Edwards Building Co.
Delaware Township, N. J.
Heating Contractor:
Herman Goldner Co.
Philadelphia, Pa.

Illustration above shows the kind and number of B & G Hydro-Flo Products installed in Parkway Apartments.

Soon to be completed, this modern housing project provides shelter for 362 families. The selection of B & G Hydro-Flo Heating was prompted by the well-known comfort-economy advantages of this system.

The project is divided into eleven groups of buildings with a boiler room for each group. Trunk supply and return mains run the length of each group, with Monoflo single mains led into the individual four-family buildings. Mains are copper tubing with B & G Copper Monoflo Fittings on both the supply and return risers to the convectors.

Here again is another demonstration of the universal application of B & G Hydro-Flo Heating. Cottage, apartment, commercial or industrial building—all are more comfortably and economically heated with this modern forced circulation hot water system.



Write today for
full information

"Capture the Sun with
B & G Hydro-Flo Heating"
presents the colorful story
of this forced hot water
system . . . the B & G Catalog
gives you complete
product data. Send for
your copies.



BELL & GOSSETT
Company

Dept. BJ-32, Morton Grove, Ill.

*Reg. U. S. Pat. Off.

THE RECORD REPORTS

(News continued from page 172)

Agreement Is Reached On New Fee Schedules

Maximum fees to be allowed for architectural services for the public housing program have been established on a "fixed fee plus reimbursable contract" basis, the American Institute of Architects has announced.

The newly approved fee schedule was worked out jointly by the A.I.A., the

Public Housing Administration and the National Association of Housing Officials after both the N.A.H.O. and the A.I.A. had requested reconsideration of a fixed fee schedule announced by PHA in October.

The new basis of compensation, while generally 2.5 times payroll costs, provides for a contract which establishes a fee to include three factors: a fixed amount equal to forty per cent of the

maximum fee schedule contained in the PHA schedule; an amount for "timecard costs" (technical payroll) which would be reimbursed to the architect on presentation of cost data approved by the local housing authority; an amount for overhead equal to 50 percent of "timecard costs."

As an alternate, now designated Option No. 1, the PHA intends to retain its previously approved schedule of fees. The new schedule will be known as Option No. 2. The decision as to whether the architect's contract is based on Option No. 1 or Option No. 2 will be left entirely to the determination of each local housing authority and its architect.

Representing the A.I.A. in the negotiations were members of the Committee on Fees: Clarence B. Litchfield, chairman; Harry M. Price, vice chairman; and David H. Morgan.

OFFICE NOTES

Offices Opened, Reopened

James P. Lockett, Architect, announces the opening of his office for the practice of architecture at 212 West Main Street, Visalia, Calif.

Guy B. Panero, Engineer, of New York, announces the opening of a branch office with Walter L. Rubel in charge at 1406 "G" Street, N.W., Washington, D.C.

Mair Samuels has opened an office for the general practice of architecture at 1225 Langham Ave., Camden, N.J.

Selby M. Wheeler, Architect, announces the opening of his office at 803 Security Bldg., Denver, Colo. Mr. Wheeler was formerly associated with Raymond Harry Ervin, Architect.

New Firms, Firm Changes

The firm of Architects, Richard Hawley Cutting, Anthony S. Ciresi and Associated Architects has become Richard Hawley Cutting Associates, with offices at 2074 E. 36th St., Cleveland 15, Ohio.

Hutchings & Milani, architects, engineers & constructors, of Hamilton, Bermuda, announce the formation of a subsidiary company, Bermuda-Caribbean Consultants Ltd., which will handle all the firm's foreign work, especially its hotel and resort development program in the Caribbean area. The firm's president and secretary, Louis C. Milani, is also president and secretary of the sub-

(Continued on page 176)



• For floors that will look better and clean easier...that will last longer under the hazards to which they are subjected by everyday family life...AZPHLEX Asphalt Tile is unsurpassed. Consider these AZPHLEX plus values:

MAXIMUM RESISTANCE to indentation by foot traffic, rolling or standing loads.

GREASE RESISTANT in the highest sense of the word — won't stain or soften if subjected to animal, mineral or vegetable greases, alkalies, alcohol or mild acid solutions.

THROUGH-AND-THROUGH COLORS and marbleizing that will never wear off — fine texture that keeps a smooth, easily polished surface.

UNIFORM HIGH QUALITY and dimensional stability — every tile die-cut.

CUSTOM INSTALLATION to produce exactly the design you specify, in the colors you specify from our wide range of samples.

AZPHLEX is ideal for installation over wood, metal or concrete slab sub-floors, above, on or below grade. It is flexible — and so tough that 1/8" AZPHLEX is the equivalent of 3/16" regular asphalt tile. Available in 10 clear, true colors: 1/8" and 3/16" thicknesses: 6" x 6", 9" x 9", 6" x 12", 12" x 12", 14" x 28", 12" x 12" DUOTONE and 1" x 24" feature strips in all colors.

For complete information about AZPHLEX, call your AZROCK-AZPHLEX dealer — or write direct to

UVALDE ROCK ASPHALT CO.
Makers of AZROCK and AZPHLEX Asphalt Tile
FROST BANK BLDG. SAN ANTONIO, TEXAS

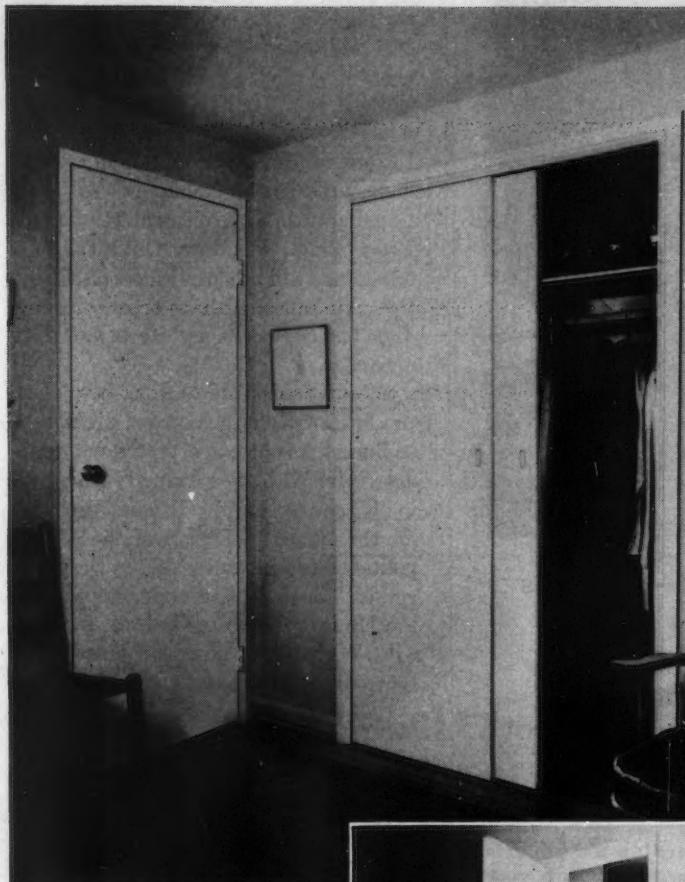


AMWELD

... the ultimate answer to

FLUSH INTERIOR STEEL DOOR, FRAME

and SLIDING CLOSET DOOR UNIT requirements

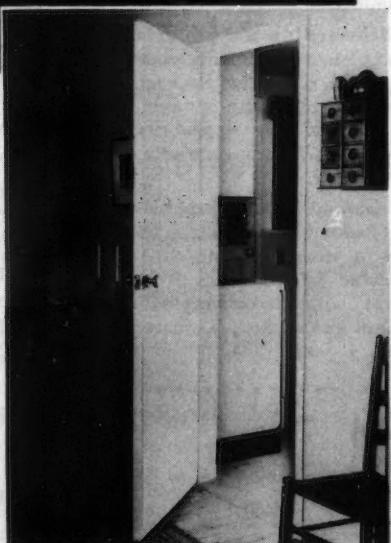


Photographs of
Graefield Terrace
Birmingham, Mich.

BUILDER: H. J. Durbin,
Detroit, Michigan.

ARCHITECT: Merle Wm. Hogan,
Detroit, Michigan.

Send for the illustrated
AMWELD BUILDING PRODUCTS
A.I.A. File No. 16 con-
taining complete specifica-
tions. Selection charts and
installation diagrams are
available for the asking.



Large scale production, based on 32 years' experience in precision manufacturing, enables AMWELD doors and frames to cut building costs and provide lasting beauty with trouble-free service. AMWELD Steel Door & Frame Units are designed to meet today's modern construction standards, blend with all types of architecture and lend themselves to installations at rates up to five times as great as those where "assembled-on-the-job" units are used.

Doors are available in $1\frac{3}{8}$ " and $1\frac{3}{4}$ " thicknesses; $1\frac{3}{8}$ " available as single-swing or double-acting. These doors may be provided with integral louvers or vision panels. Doors are factory rabbeted and bored for standard hardware. Frames and hinges are furnished as a one piece welded assembly. To insure parallel alignment, removable steel spreaders are welded to bottoms of the frames. Doors are furnished with a neutral color primer, electrostatically applied and controlled; frames are rust-resistant primed.

AMWELD METAL SLIDING CLOSET DOOR UNITS

Sliding closet doors have definite advantages in the saving in space and increased accessibility to closet content, plus saving in initial construction cost. Steel door panels are formed on four edges, fitted with finger pulls. Jambs, header and track—the same high quality and construction as door frames. Available for 3', 4', 5' and 6' openings—2 doors. AMWELD Steel Sliding Closet Door Units are also available in packaged, knocked-down units.



VISIT OUR BOOTH, No. 6,
at the NATIONAL HOME BUILDERS SHOW
Congress Hotel, Chicago, Feb. 19-23

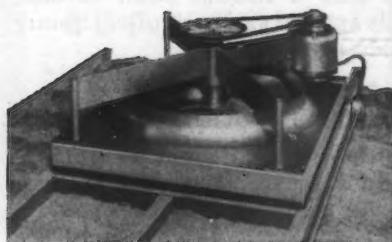
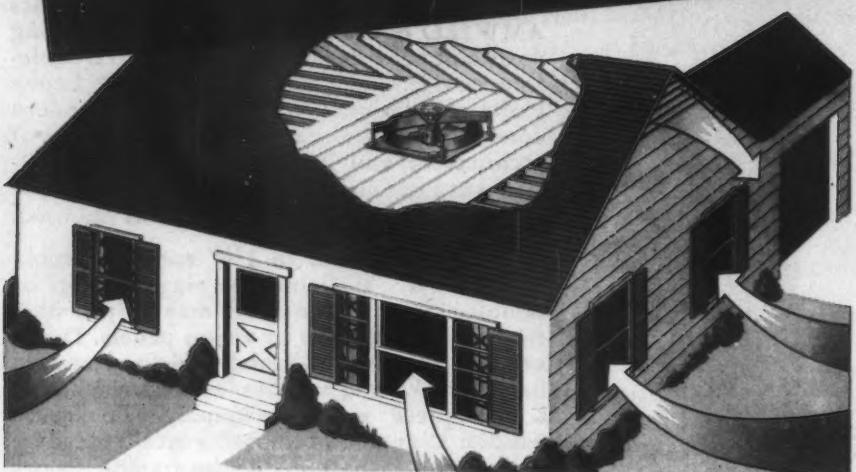
Building Products Division

THE AMERICAN WELDING & MANUFACTURING CO.

WARREN, OHIO

See our exhibit at
N. A. H. B. Show

HUNTER ATTIC FANS give your homes low-cost Climate Control



Quiet, powerful, compact



New automatic ceiling shutter

Easily installed—provides cool comfort for hot summer months

Hunter Package Attic Fan is a complete home-cooling system . . . low in initial cost, economical to operate and designed for fast, inexpensive installation. No other small investment gives home-owners so much summer comfort.

Easy to Install: Delivered on the job as a compact unit, complete with ceiling shutter and modern metal trim, the Package Fan is quickly installed in ceiling opening. No suction-box to build; no accessories needed. Requires only 17" attic clearance, fits any standard hallway.

Performance Guaranteed: Quiet, trouble-free operation is assured by Hunter's 64 years' experience in manufacturing fans, exclusively. Available in capacities from 4750 to 9500 CFM, with air delivery ratings certified. Fan guaranteed 5 years; motor and shutter, 1 year.

MAIL FOR COMPLETE DATA

Hunter Fan and Ventilating Company
396 South Front Street,
Memphis, Tenn.

Send copy of "How to Cool for Comfort" to:

Name.....

Address.....

City & State.....

Hunter Package Attic Fans

THE RECORD REPORTS

(Continued from page 174)

sidiary. Other officers of the new company are: Clarke Warner Abbott, R.I.B.A., vice president; Sylvia M. Pace (the firm's treasurer), treasurer; N. J. Senesey, A.I.A., chief architect; and John W. Duffy, A.R.I.B.A., M.R.I.B.A., chief draftsman. English and American architects make up the balance of the organization.

V. E. Vallet, president of Giffels & Vallet, Inc., L. Rossetti, Associated Architects and Engineers, of Detroit, has announced the formation of a Canadian subsidiary, Giffels & Vallet of Canada, Ltd., with offices at 210 Canada Trust Bldg., Windsor, Ont. The new subsidiary will be closely associated with the main office, with its organization of some 500 engineers, architects and technicians.

John Alfred Wahl, A.I.A., has joined the firm of Kelly & Gruzen, architects-engineers, as office and production manager. Mr. Wahl was formerly assistant-in-charge to Irwin Clavan, architect for the Board of Design of the Metropolitan Life Insurance Co., on the Stuyvesant Town, Peter Cooper and River-ton Housing Projects, and was recently with W. Stuart Thompson and Phelps Barnum, architects.

New Addresses

The following new addresses have been announced:

Akron Art Institute, 69 E. Market St., Akron, Ohio.

G. A. Downs, Architect, 101 Post St., San Francisco 8, Calif.

Arne G. Engberg, A.I.A., 3810 Fannin St., Houston, Tex.

Gross-Morton Co., bldrs. and developers, 255-55 Union Turnpike, Glen Oaks, Queens, N. Y.

Alexander & Rothschild, Designers and Architect Associates, 316 Peachtree St., Atlanta 3, Ga.

Thomas F. Walston, Architect, Room 306, Professional Arts Building, Ashland, Ky.

ERRATUM

An incorrect credit line appeared under the rendering of the Cafritz Building, Washington, D. C., which was shown on page 12 of the December issue of the RECORD. The rendering should have been credited to the architect, LeRoy L. Werner, A.I.A.

(News continued on page 178)

IT'S NEW!

DEEP SPANDREL

Dovetail Slot for
Masonry Anchors

Revere-Simplex
Reglet

Revere-Simplex
Reglet Insert
Flashing

Spandrel Angle

Caulking

REVERE-SIMPLEX REGLET SYSTEM For Waterproofing Spandrel Beams

- The Revere-Simplex Reglet System is an economical and efficient method of flashing spandrel beams and column faces with enduring copper. This system offers the following advantages:

Affords greater moisture protection for the building.

Eliminates the necessity of flashing the entire face of each spandrel beam. In that way, it not only avoids interference with wall ties, stone anchors, angle bolts, etc., but also insures substantial economies through a large saving in flashing material.

Diverts all seepage to the exterior wall face, and prevents rusting of the steel work.

Is based upon the use of the Revere-Simplex Reglet, which is a simple, practical, easily installed receiving device for securing metal flashings in concrete. This patented reglet provides a permanent watertight connection between concrete and copper flashing, for all concrete surfaces.

The Revere-Simplex Reglet not only overcomes installation difficulties experienced with ordinary "open slot" metal reglets, but provides a substantial saving in cost as well. This is due to its many exclusive features, all of which cut down installation time and insure a superior flashing installation.

Write today for your copy of the new 6-page folder which describes the Revere-Simplex Reglet System. This folder includes short form specifications for the Revere-Simplex Reglet System and detail drawings showing where and how copper waterproofing should be used below the roof line.

Revere products now available through Revere Distributors include: Sheet and Roll Copper for roofing, gutters, flashing, etc.; Lead-Coated Copper; Revere-Keystone Thru-Wall Flashing; Revere-Simplex Reglet and Reglet Insert Flashing; Revere-Keystone Vertical Ribbed Siding. A Revere Technical Advisor will always be glad to consult with you without obligation.

REVERE
COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

230 Park Avenue, New York 17, New York

• • •

Mills: Baltimore, Md.; Chicago, Ill.; Detroit, Mich.; Los Angeles and Riverside, Calif.; New Bedford, Mass.; Rome, N. Y.

Sales Offices in Principal Cities, Distributors Everywhere.

Copper Makes Common Sense

THE RECORD REPORTS

NEWS FROM CANADA

By John Caulfield Smith



National Film Board Photos



MODEL ON TOUR DEPICTS OTTAWA OF THE FUTURE

The National Capital Plan, shown here in photos of a marvelously minute and accurate model currently touring the Dominion, proposes creation in the heart of Ottawa of a large park surrounded by public buildings. First step will be construction of a new bridge (top right in photo above) to relieve congestion at the Plaza. New city hall, new National Institute of Fine Arts, a civic theatre are among the projects visualized in the completed plan.

(Continued on page 180)

WEATHER STRIPS FOR SLIDING DOORS



ACCURATE METAL WEATHER STRIP CO., Inc.

215 EAST 26th STREET, NEW YORK 10, N. Y.

Outdoor vistas become so real when enjoyed through wide open sliding doors. The highly improved form of metal weather stripping for the sliding door, as developed by "ACCURATE," has resulted in a wide demand for this type of door. Fully open when weather permits. Closed tight and sealed tight in inclement weather. The home here illustrated was designed by Mr. James Kellum Smith, Architect, N. Y. Write for data sheets.



Why Rotary Oildraulic Elevators were selected for new Doctors' Hospital at Coral Gables

■ Quietness was an important consideration in the design of the new Doctors' Hospital in Coral Gables. Rotary Oildraulic Elevators were selected because the Rota-Flow hydraulic power unit eliminates the noise and vibration of ordinary hydraulic elevator pumps. The elevator car rises and descends on a pulsation-free column of oil which is "locked" whenever the car is stopped.

Smooth starting, smooth stopping and precise, automatic floor leveling are other essentials. Patients must be moved without jolt or shock. By means of a balanced-pressure hydraulic control system (Rota-Relief), Oildraulic Elevators operate with velvet smoothness. And Rotary guarantees automatic landings

*Architects: Stewart & Skinner
Contractors: Fred Howland, Inc.
Elevators installed by: Miami Elevator Co.*

within $\frac{1}{4}$ " of floor level, regardless of load size or rate of speed.

Low installation and operating costs, flexibility of design made possible by eliminating penthouse and heavy shaftway structures, and long life make Rotary Oildraulics the most practical of all elevators.

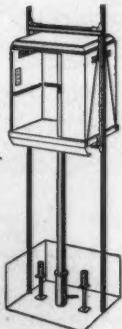
If a 2, 3 or 4-story building is among your projects for 1950, see our section in Sweet's File or write for Rotary catalog and list of recent installations.



Oildraulic Elevators

PASSENGER AND FREIGHT

Rotary Lift Company, 1102 Kentucky, Memphis 2, Tennessee



THE RECORD REPORTS

CANADA

(Continued from page 178)

Planning Spotlighted

With the National Capitol Planning Committee currently taking plaudits for its touring presentation of the master plan for Ottawa (see p. 178), and new reports from Toronto and Edmonton on

the status of planning for those cities, development planning seems to be very much on center stage in Canada.

Hon. Robert H. Winters, Minister of Reconstruction, recently underlined one practical reason when he told the Maritime Conference of the Community Planning Association of Canada that he doubted whether federal or provincial governments should make financial contributions for housing in any area where

a process of appraisal and planning has not taken place.

Encouraged by official approval of the Toronto Planning Board's proposals for the city's next 30 years of growth, the Toronto and York County Planning Board has submitted a report dealing with the metropolitan area as a whole. This report advocates outright amalgamation of Toronto and seven suburban municipalities as a metropolis of 900,000 as well as unified planning and spending for highway, water sewerage and other public services in the area.

A report from Professors John Bland and Harold Spence-Sales of McGill University on planning for Edmonton draws attention to a problem which is not confined to Edmonton — the difficulty of defining the useful areas of activity in planning of permanent municipal servants and the citizens' groups making up community planning commissions. The report recommends an advisory District Planning Board staffed with provincial and municipal members and a City Planning and Development Board of city officials responsible for planning.

Gentle
on PARTITIONS
... and NERVES
RIXSON
SERIES 350

Special problems of installation will receive prompt attention from the Rixson engineering and designing departments.



Checking Pivot Hinges Are Non-Handed—Single and Double Acting—and Priced for Popularity

Thoroughly dependable and reasonably priced, Rixson Series 350 Pivot Hinges are favored everywhere on lavatory stall doors, dwarf doors, rail gates, booth doors, etc. Can be used on right or left hand single acting or on double acting doors. Spring and hydraulic mechanism assures full checking control all the way to closed position of the door. Furnished with nearly any type of bracket, pivot or arm.

The Oscar C. Rixson Company
4450 Carroll Avenue Chicago 24, Illinois Telephone Mansfield 6-5050
Established 1900

SALES REPRESENTATIVES

- ATLANTA—Walter S. Johnson, 917 St. Charles Ave., Tel. Vernon 4725.
CANADA—The Richards-Wilcox Canadian Co., Ltd., London, Ont., Tel. Fairmont 2800.
LOS ANGELES—George E. Tupper, 1010 W. Olympic Blvd., Tel. Prospect 0924.
NEW YORK—Fred G. MacKenzie, 107 Reade St., Tel. Barclay 7-6852.
- PHILADELPHIA—G. Norris Williams, 211 Greenwood Ave., Wyndale, Pa., Tel. Ogontz 1929.
PORTLAND, ORE.—W. N. Browning, 529 Henry Bldg., Tel. Atwater 5839.
SEATTLE—E. R. Spragg, 4012 East 38th St., Tel. Kenwood 7605.
WASHINGTON, D. C.—L. J. Fait, 2068 14th St. N., Arlington, Va., Tel. Chestnut 6262.



Model photo: Manufacturers Life Insurance Head Office, Toronto, showing addition proposed to double office space. Marani & Morris, architects. Below: present structure



Build any style of fireplace around the proved **HEATILATOR* FIREPLACE UNIT!**

Assures correct execution of any design

The Heatilator Unit is a complete fireplace from hearth to flue, around which any kind of decorative masonry in any desired form can be built. It consists of:

1. A scientifically designed firebox
2. A properly proportioned throat to insure proper draft
3. A removable damper with adjustable poker control
4. Extra wide down-draft shelf made of heavy steel
5. Complete metal smoke dome to speed passage of smoke into chimney

By pre-building these vital parts, the Heatilator Unit insures a fireplace that draws properly and will not smoke. By eliminating the need for guesswork and rule-of-thumb methods on the part of masons, it permits unsupervised construction.

Original economy

—Long-run savings!

Because the Heatilator Unit is ready to install, with no extra parts to buy or build, it saves mason time and labor. It saves on expensive firebrick. Thus, a completed Heatilator Fireplace costs little, if any, more than an ordinary fireplace. And in addition, your client can count on the dollars-and-cents savings of smokeless, trouble-free operation.

Heatilator Fireplace Gives More Comfort, Greater Pleasure!

A Heatilator Fireplace draws in air from floor level, heats it, and circulates it to



The white warm air grilles of this Colonial Fireplace blend with the woodwork.



An example of warm air outlet grille placement in a fireplace with projecting mantel.

every corner of the room, and to other rooms as well. By utilizing heat that is ordinarily wasted, it makes furnace operation unnecessary on cool Spring and Fall days.

In mild climates, it is the only heating equipment needed—saving the cost of expensive heating plants that are used only a short time each year.

The Ideal Way to Heat Camps and Cabins

Heatilator Fireplaces make camps and cabins usable weeks longer in Spring and Autumn. It solves the heating problem in basement recreation rooms without unsightly pipes and radiators.

Heatilator Fireplace Units are not a new, unproved idea. Perfected over twenty-two years ago, they are in successful use in hundreds of thousands of American homes.

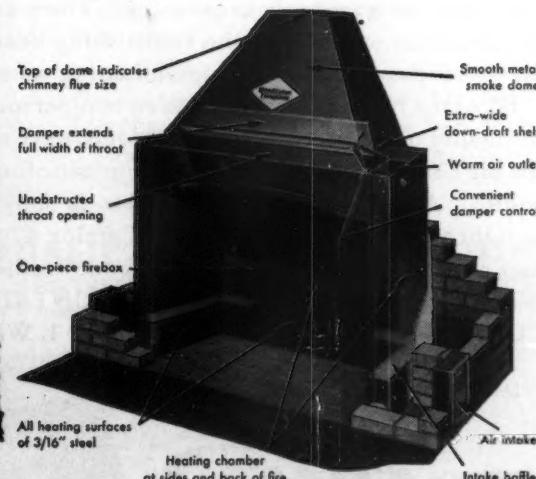
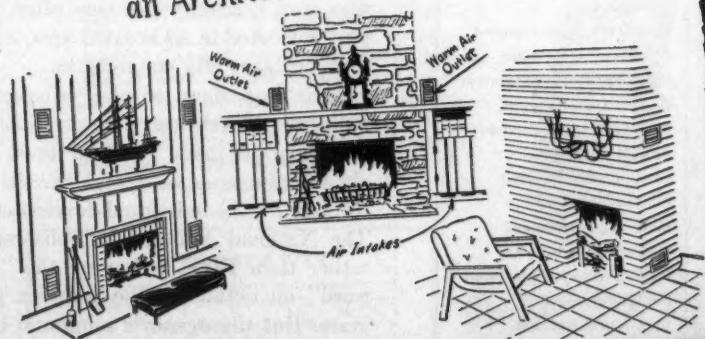
No Limit to Ingenious, Decorative Ways of Placing Outlet Grilles

The Heatilator warm-air outlet grilles are easily placed to blend with the general fireplace design... to provide points of decorative interest. Or, in many cases, they can be completely hidden in cupboards or bookcases. They can even be placed in an upstairs or adjoining room!

Give clients the advantages of a genuine Heatilator Fireplace. Write today for complete specifications and illustrations showing the unlimited variety of architectural styles possible with Heatilator Fireplace Units. Heatilator, Inc., 612 E. Brighton Avenue, Syracuse 5, N. Y.

*Heatilator is the reg. trade mark of Heatilator, Inc.

IDEAS from an Architect's Sketch Pad . . .



HEATILATOR *America's Leading* **FIREPLACE**

T.M. REG. U.S. PAT. OFF.

PROTECT HANDS

With BRADLEY
Sanitary
Washfountains

When you say something is "hospital clean" it indicates the utmost in sanitation care. Just so, when you speak of "sanitary wash fixtures" Bradley Washfountains come to mind. For Bradleys represent the *utmost* in health protecting facilities.

ECONOMICAL—CONVENIENT

One 54-in. Bradley Washfountain serves 8 to 10 persons simultaneously. An ever-clean spray of tempered water is supplied by a single central sprayhead using little more water for ten than a conventional washbasin uses for one. There are no faucets to touch—and the self-flushing drain bowl prevents collection of contaminating water.

BRADLEY DUOS, built to serve two persons in smaller or more secluded washrooms, have all the big Bradley features including automatic foot-control. A DUO hospital installation is shown at right above. Send for illustrated Catalog 4701 and read all the interesting facts about Bradley Washfountains. **BRADLEY WASHFOUNTAIN CO., 2227 W. Michigan St., Milwaukee 1, Wis.**

Distributed Through Plumbing Wholesalers

BRADLEY
washfountains



THE RECORD REPORTS

(Continued from page 10)

but often there is only one sponsor bidding for the work.

As the Wherry Bill was written, the military projects may be either on or off the military reservation. Private interests undertake the developments with mortgage money insured by the FHA. Congress last year voted a \$1 billion fund for this insurance. Administered by the FHA, it is charged on the books to the military.

Sponsors bidding for the right to construct these projects on their own must submit an outline, a site plan and line drawings to form the basis for rent schedule determination. The rents to be charged must be in line with ability of the personnel to pay. Complete plans and specifications are not prepared until the final sponsor is selected.

In general, the financing plan follows the pattern of FHA operations under Sec. 608. Each of the three services must certify, on its own projects, that the location is fairly permanent and that the proposed housing is needed. This is done before FHA insurance is obtained.

There is no separate set of FHA construction standards for the Wherry Bill housing. An agency spokesman said there might have to be some modification of the existing rules and regulations in certain instances affected by land arrangements, but the present FHA standards will apply as written to the military rental construction.

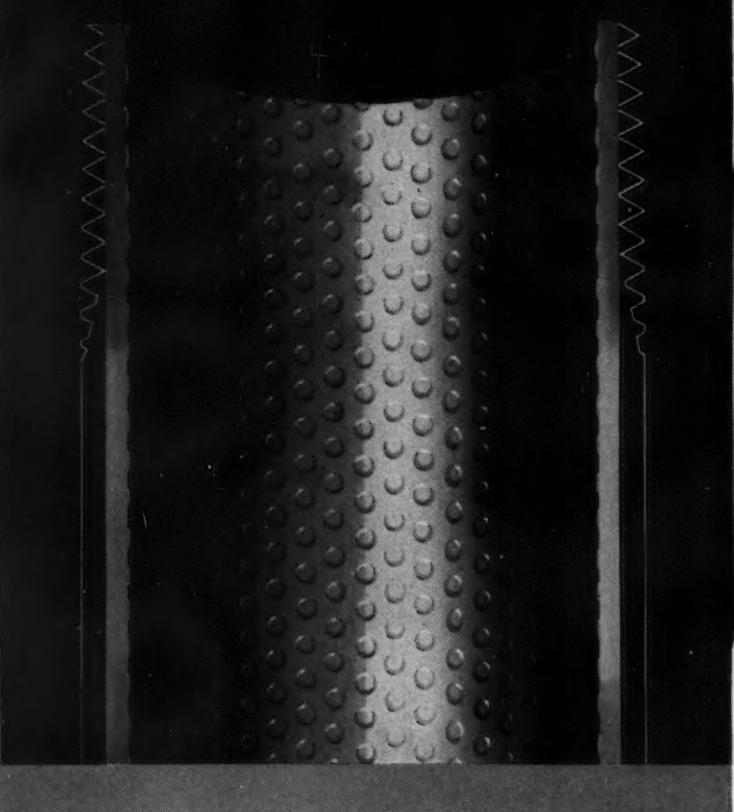
If the land selected for the project is government property inside the reservation, the branch of service concerned can rent or sell the area to the sponsor selected. In most instances the military establishment will furnish utility connections for the development. This provision was necessary because often the post is located in an isolated area, away from ordinary city connections.

It is important to the prospective builder and architect that decisions in the program made at local level are almost always upheld and carried on through for the individual development. The National Military Establishment, rather than FHA, is having the "last word" on details in the complex program. But the agency's minimum construction standards must be observed.

The program will pick up speed in 1950. It is hoped a large volume of rental construction can be contributed to alleviate deplorable housing conditions at many installations.

ELECTRUNITE E.M.T.

...the ORIGINAL lightweight
rigid steel wiring raceway



The wall thickness of Republic ELECTRUNITE E.M.T. (electrical metallic tubing) was not arrived at by guesswork! It was carefully and scientifically determined by Steel and Tubes. Subsequent tests by a recognized fact-finding board have proved that it provides adequate mechanical and electrical protection throughout the installation.

SEE SWEET'S FILE
or write us for detailed information on
these Republic Steel Building Products:
Pipe—Sheets—Roofing
Enduro Stainless Steel
Toncan Enameling Iron
Electrunite E.M.T.
Fretz-Moon Rigid Steel Conduit
Taylor Roofing Ternes
Berger Lockers, Bins, Shelving
Berger Cabinets for Kitchens
Truscon Steel Windows, Doors, Joists
and other Building Products



NEEDS NO
EXCESS METAL
TO ACT AS A BASE FOR
Thread-Cutting

Here's the BIG DIFFERENCE between Republic ELECTRUNITE E.M.T. and heavy threaded conduit. With threaded conduit, there must be excess metal to act as a base for threads and still leave adequate wall thickness underneath. Because modern ELECTRUNITE E.M.T. is *threadless*, it does not require excess metal . . . its adequate wall thickness is uniform throughout every length . . . its unbroken coating of protective zinc provides continuous protection against rust and corrosion.

From an installation standpoint, too, ELECTRUNITE E.M.T.'s lighter weight means important cost-saving advantages: easier handling . . . easier installation in hard-to-reach locations . . . easier, more accurate bending . . . fewer delays on the job.

For raceways that are exposed, concealed or in concrete, you can't beat ELECTRUNITE E.M.T. Get all of the facts from your nearest Steel and Tubes Representative . . . or write to:

REPUBLIC STEEL CORPORATION
STEEL AND TUBES DIVISION • CLEVELAND 8, OHIO
Export Department: Chrysler Building, New York 17, New York



Republic
ELECTRUNITE E.M.T.



**YOU CAN MAINTAIN
HIGH ARCHITECTURAL STANDARDS
AND REDUCE BUILDING COSTS...
THROUGH THE SKILLFUL USE OF
CUSTOM-STYLED KAWNEER STOCK METALS**

Guild House

SHOES & ACCESSORIES



You can achieve all the unique distinction of custom-styling—all the clean-lined simplicity of modern design—by creatively adapting Kawneer Stock Metals to your individual style.

A perfect example is this outstanding women's shop in Long Beach, California.

To increase customer traffic, Kenneth S. Wing, A.I.A., decided to create an inviting open-air atmosphere which would eliminate the usual building line barrier and put the attractive interior on display.

To achieve this effect Mr. Wing specified Kawneer Patented Flush Glazing Sash, one of the many modern Kawneer Stock Metals.

The face of this sash is flush with surrounding wall and ceiling surfaces, because all projecting members are eliminated. To the eye, the surfaces on both sides of the glass appear to be a single smooth

plane, continuous and uninterrupted by glazing sash.

By using such Kawneer Stock Metals you can meet your clients' demands for lower building costs—and you can reduce your own operating costs. Kawneer Stock Metals are far less costly than special, made-to-order assemblies—and they eliminate time-consuming drafting and detailing in your own office.

For information, consult your Portfolio of Kawneer Details or write 201 N. Front St., Niles, Mich.; or 2561 8th St., Berkeley, Cal.

THE
Kawneer
COMPANY

ARCHITECTURAL METAL PRODUCTS

Store Front Metals • Modern Entrances
Facing Materials • Aluminum Louvered Ceilings
Aluminum Roll-Type Awnings

ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

PRODUCTS

(Continued from page 139)

normal atmospheric temperatures with little or no refrigeration required. The apparatus is enclosed in a casing through which air is drawn by fans. Air is filtered, then dehumidified by passing through a spray of Hygrol. The air stream next

passes cooling coils and moisture eliminators, and is diffused in the space to be conditioned.

The absorbent liquid spray falls into a tank at the base, is piped to a concentrator to remove moisture taken from the air, and returned to the system. The equipment is manufactured in a wide range of sizes. Niagara Blower Co., 405 Lexington Ave., New York 17, N. Y.

Fire-Resistant Fabric

A fire-resistant drapery fabric, woven of Fiberglas and wool yarns, has been developed by the textile division of Knoll Associates from a hand loomed design by Marianne Strengell. The material is said to meet rigid fire-safety requirements for use in places of public assembly, and to drape well. Sunlight, gases in the atmosphere and mildew are reported not to affect the fabric, nor do changes in temperature and humidity. It is available in four two-tone tweed effects: green, blue, red or black in combination with natural, and in natural. Owens-Corning Fiberglas Corp., 16 E. 56th St., New York 22, N. Y.

*for roof or floor
fills
lightweight...insulating*

Use concrete made with Waylite aggregate for roof or floor fills. Reduces deadweight. Has high thermal insulation and sound-deadening values. Incombustible. Easily placed, especially around pipes and conduits.

Waylite is a lightweight air-cell aggregate made by processing molten blast furnace slag. It is a uniform material that comes properly graded. Recommendations for its use are supported by a wealth of technical data and by widespread, successful use on various types of structures. Approved by Board of Standards and Appeals, New York City.

In addition to fills, Waylite aggregate makes lightweight structural concrete that saves as much as 35% deadweight and can be designed up to 4000 psi. See Sweet's for engineering data. For further information and quotations, address the Waylite Co., 105 W. Madison St., Chicago 2, or Box 30, Bethlehem, Pa.

for
lightweight
concrete

WAYLITE
AGGREGATE



Structural floor serves as heat ducts

Heating With Cellular Floors

Fenestra steel cellular panels were installed in the Ideal Home of the 1950 Detroit Builders' Show as both subflooring and heating ducts. Panels were laid from beam to beam, eliminating joists, and joined by an interlocking feature. Use of these units is said to permit faster, easier construction of subflooring.

Panel cells serve as ducts for hot air distribution and cold air return. Heat is radiated through the floor, and flows out of baseboard registers. With such construction, the basement ceiling is flush and requires no finishing. Cutting of panels around openings is reported a simple operation on the job. Pipes and wire can be enclosed in the panel cells. Detroit Steel Products Co., 2250 E. Grand Blvd., Detroit 11, Mich.

Kitchen and Bath Fixtures

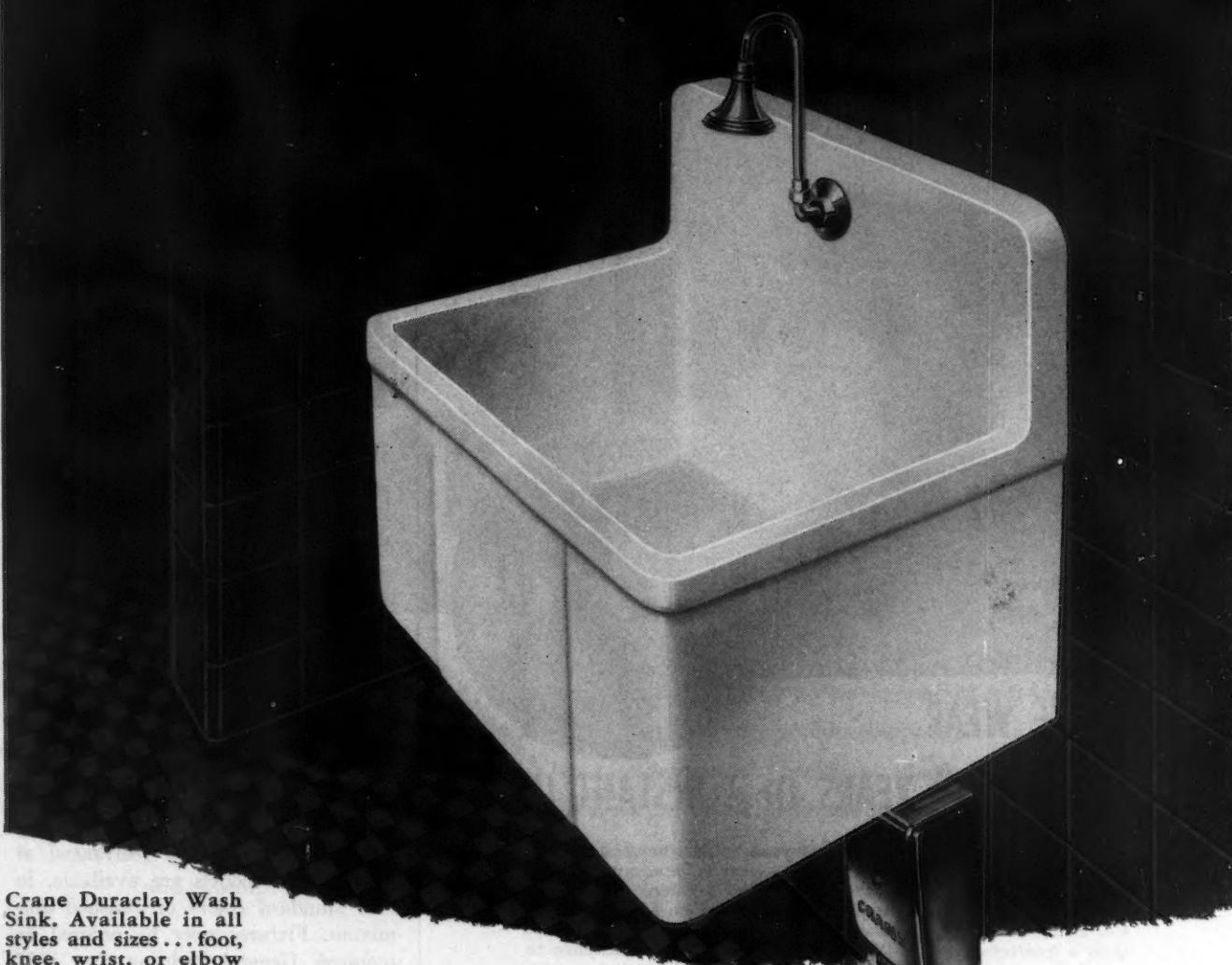
The Murray Corp. of America, producers of automobile bodies and assemblies, will soon be in full production of home appliances at their new Scranton plant.

The line of Murray kitchen appliances

(Continued on page 188)

CRANE

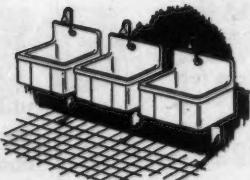
the preferred hospital plumbing



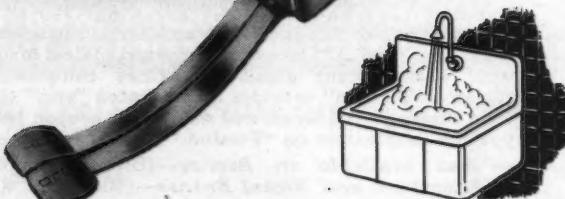
Crane Duraclay Wash Sink. Available in all styles and sizes . . . foot, knee, wrist, or elbow operation.



Running water, open drain make sanitation complete.



Users prefer individual sinks—no congestion.



Crane Duraclay immune to thermal shock.

For anything in hospital plumbing, consult your Crane Branch or Crane Wholesaler.

CRANE

CRANE CO., GENERAL OFFICES:
836 S. MICHIGAN AVE., CHICAGO 5

PLUMBING AND HEATING
VALVES • FITTINGS • PIPE

ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

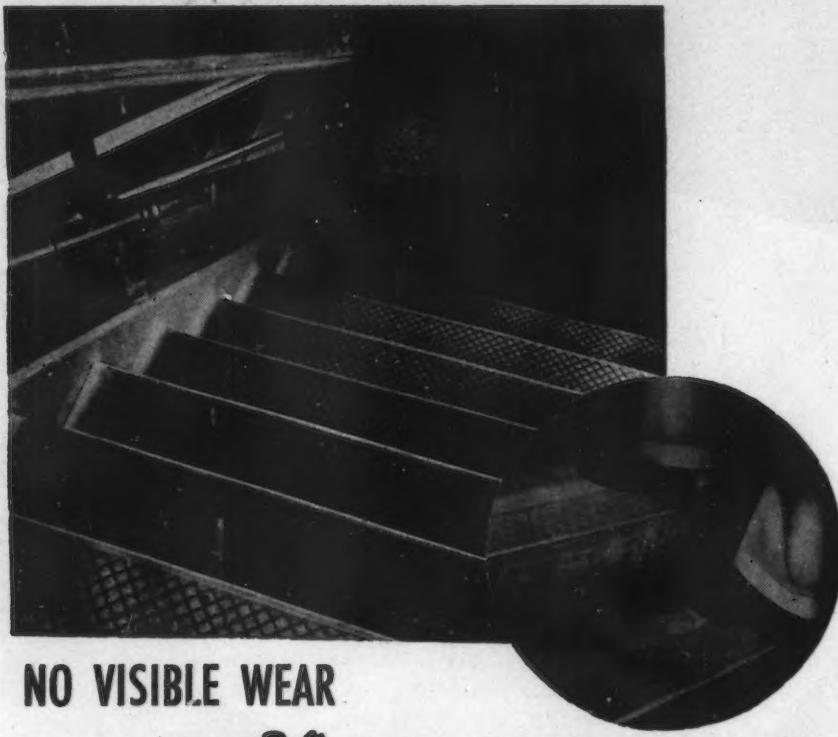
PRODUCTS

(Continued from page 186)

and bathroom fixtures is announced for the moderate price field. The kitchen line comprises gas and electric ranges, a series of sink and cabinet combinations, floor and wall cabinets and flat-rim sinks. The equipment is of welded con-

struction throughout and is available with a wide range of fittings and features.

Bathroom fixtures include corner and recess bathtubs and open base or cabinet base lavatories. Bathtubs are said to be lightweight, and of an acid-resisting porcelain. Fixtures are made in white, blue, green, sandstone and ivory colors. Murray Corp. of America, Home Appliance Div., Scranton, Pa.



NO VISIBLE WEAR

AFTER 30 YEARS OF CONSTANT USE!

Stairs get a lot of punishment in 30 years under the thousands of busy feet which go up and down them—year in, year out. Yet this unretouched photograph (just taken) of the "Feralun" stair treads, installed 30 years ago in the plant of the Dennison Manufacturing Co. at Framingham, Massachusetts, shows no evidence of more than a quarter-century's "foot traffic." 30 years of resistance to wear! 30 years of non-slip underfoot safety! Good for many years to come!

Examples like this show why architects, engineers and builders insist on "Feralun" treads, nosings and plates. Made of cast iron with wear-resistant abrasive particles embedded in walking surfaces, "Feralun" provides a sure-footed "grip" that keeps feet from slipping—and wears and wears. The coupon below will bring you full information on "Feralun." Send it today.

*Also available in Bronze—(Bronzalun), Aluminum—(Alumalum), and Nickel Bronze—(Nicalum). ®

**AMERICAN ABRASIVE METALS CO.
IRVINGTON 11, N. J.**

AMERICAN ABRASIVE
METALS CO.
470 COIT STREET
IRVINGTON 11, N. J.

Gentlemen: Please send me full information on Feralun.

(AR 2-50)

NAME TITLE
COMPANY
ADDRESS
CITY STATE

Room-Size Rugs

Based on a survey of average room sizes throughout the U. S., a new line of broadloom rugs, called *Floor-Plan Rugs*, is available in 20 sizes, ranging from 27 by 54 in. to 12 by 21 ft. The plan is said to allow cheaper cost and quicker delivery than special tailored carpeting. The line is made in 12 solid colors in a nubby twist weave, 16 patterns of multicolor designs, and 12 patterns of tone-on-tone textures. Alexander Smith & Sons Carpet Co., 295 Fifth Ave., New York, N. Y.



Wiring duct holds fixtures at any point

Flexible Display Lighting

A standardized and prefabricated wiring system has been designed, adapting the *Bulldog Trol-E-Duct* for store and display illumination where frequent changes in lighting layout are needed. The duct is said to be easily and quickly installed, and allows flood or spot lights to be snapped on at any point in the duct without any new electrical work. Lighting units may be beamed in any direction required, and rearranged at will. Several models are available, in four standard colors or brushed aluminum. Fixtures may be ordered as required. General Lighting Co., 1527 Charlotte St., New York 60, N. Y.

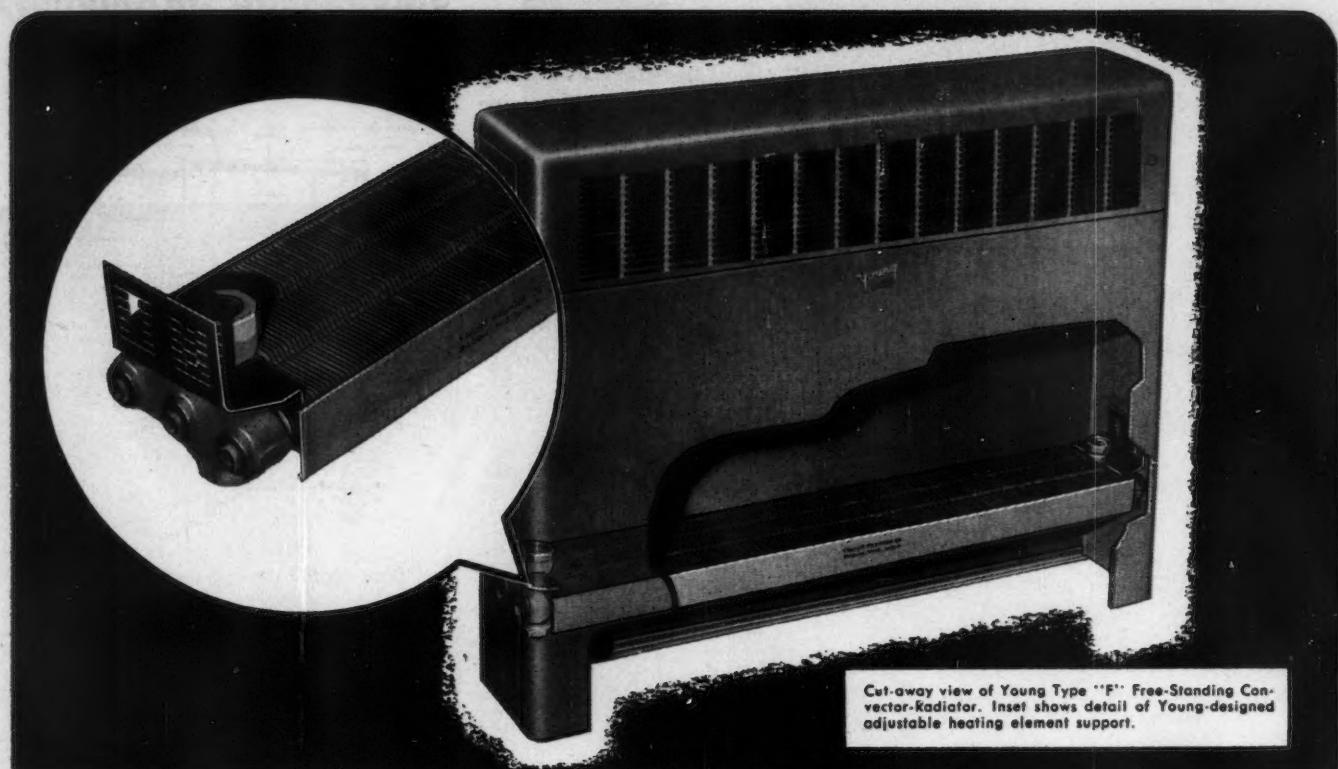
New Wood Product

A new hard board sheet, developed to utilize wood wastes, is made by compressing a blend of wood shavings, chips, and ground wood, all bonded by a Plaskon urea formaldehyde resin.

Wonderboard is reported to have a distinctive warm appearance, being comprised of any combination of wood particles. Reputed qualities include: lightness; non-warping; resistance to fungus, dry rot, termites and fire; strength adequate for a structural material; water re-

(Continued on page 190)

Save on Installation Costs with **YOUNG CONVECTOR-RADIATORS**



Cut-away view of Young Type "F" Free-Standing Convector-Radiator. Inset shows detail of Young-designed adjustable heating element support.

Once again Young Engineering saves you money. A new heating element support cuts installation time and permits quick pitching adjustments. Its rigidity permits shipping core in position ... another time saver. An additional Young innovation, unit packaging, also speeds handling on the job. Each sturdy carton is clearly marked for quick identification and protects units in handling. The Young Convector-Radiator Line includes a style and size for any hot water and two-pipe steam system. Mail the coupon below for further helpful information.

YOUNG

Heat Transfer Products for Automotive and Industrial Applications.



Heating, Cooling, and Air Conditioning Products for Home and Industry.

T. M. Reg. U.S. Pat. Off.

YOUNG RADIATOR COMPANY
DEPT. 610-B, RACINE, WISCONSIN

Plants at Racine, Wisconsin and Mattoon, Illinois
Sales and Engineering Offices in All Principal Cities

LEARN HOW YOUNG CONVECTOR-RADIATORS CAN CUT CORNERS ON HEATING BUDGETS

YOUNG RADIATOR COMPANY

Dept. 610-B
Racine, Wisconsin

Rush me full details about the Young Convector-Radiator Line, without obligation.



Name. _____

Address. _____

City. _____ Zone. _____ State. _____

ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

PRODUCTS

(Continued from page 188)

sistance; insulation for both sound and temperatures; and adaptability for veneering. Standard sizes of the new board will be 48 by 96 in. and $\frac{1}{4}$ to $\frac{1}{2}$ in. thick. Wonderwood Corp., Corona, Del Mar, Calif.

TV Antenna System

A multiple-outlet TV antenna system, called *Antenaplex* has been designed to meet the problems of apartment houses, hotels, office buildings, etc. The system consists of a roof-top antenna for each channel to be received; a master signal amplifier to boost the strength of signals received; and a co-axial cable carrying all signals to outlets throughout the

building. Each system is specially engineered for a building, with antennas individually tuned to a particular channel. Receivers are electrically isolated from others in the system. These features are said to insure maximum signal strength and eliminate ghost images caused by signal reflections from other buildings. RCA Victor Div., Radio Corp. of America, Camden, N. J.

TERRAZZO in action



Always at the "foot" of the class

Terrazzo
graduates with flying colors

Educated in the school of hard knocks, TERRAZZO takes the punishing wear of class-bound students without complaint. It repays architects' foresight with remarkably long life and low upkeep. Its smooth, jointless surface cleans easily. It is easy to walk on—less slippery than any waxed surface.

TERRAZZO is available in almost any design or combination of colors. You can use it for floors, walls, baseboards, wainscots and stairways. First cost is low, repairs and replacements are minimized, cost of cleaning is cut. Specify TERRAZZO and end floor problems once and for all time!

THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION, INC.

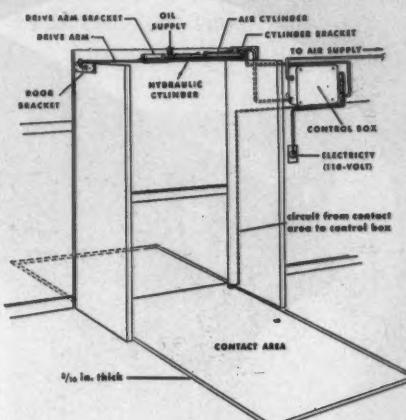
1420 New York Avenue, N. W.

Dept. R

Washington 5, D. C.



Write for free
AIA Kit, the
complete refer-
ence work about
TERRAZZO



Door control uses no motors or gears

Automatic Door Opener

With the *Astra Automatic Door Control*, opening of door is electrically actuated by walking on a $\frac{3}{16}$ -in. floor plate either side of door. The plate has low-angle rising edges for safe, smooth approach. No guide railing is necessary. Opening and closing of doors is air operated and hydraulically controlled, requires no motor or gears. Air power may be supplied by the building's regular air pressure system or by a small compressor. In case of a power failure, doors may be manually operated.

Designed especially for public and industrial buildings, the doors are said to be economical, easy to maintain, and can be installed without remodeling doors, walls or floors. Astra Engineering Co., 933 S. Fair Oaks, Pasadena, Calif.

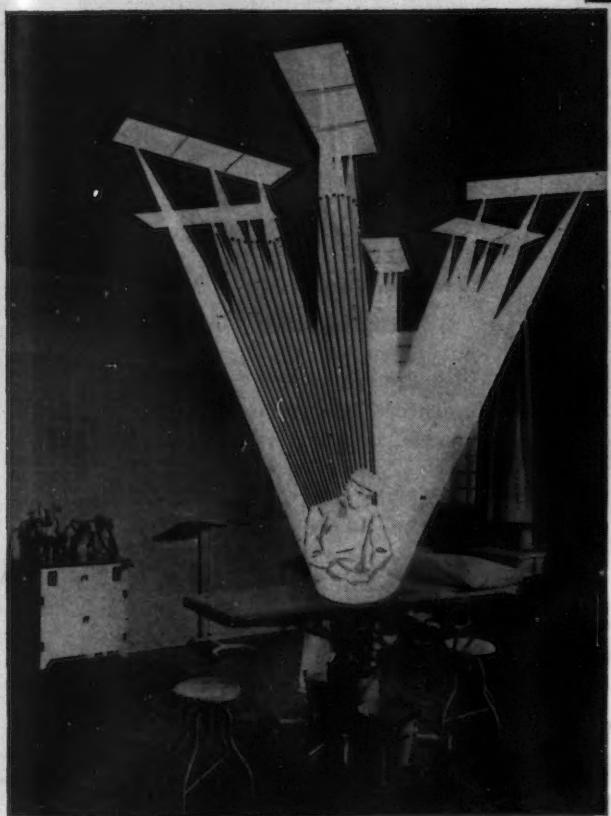
Multi-Outlet Strip

The *Plug-In-Strip* provides electrical outlets at either 6 or 18 in. intervals. In addition to the conventional two slots in each receptacle, there is an adjacent third slot with a copper insert mounted to the steel base for grounding to the earth. This construction allows the use of either a standard plug or the series 5200 3-blade grounding plug.

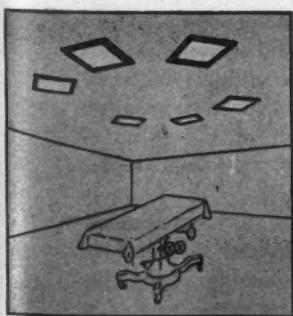
The strip is of 24-gage steel channel,

(Continued on page 192)

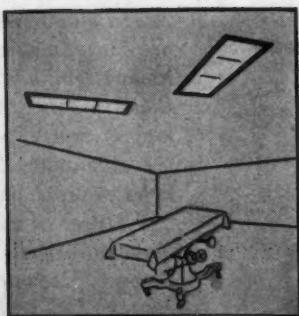
The NEW
**HOLOPHANE SURGERY
 LIGHTING SYSTEM**
**Provides Most Effective,
 Economical, Dependable
 Illumination**



Wide distribution of light sources insures rays that approach the wound area from many different directions, free from normal interception by personnel about the table.



Sketch showing Holophane Emergency or Minor Surgery System



Sketch showing Holophane Delivery Room System

*REG. U.S. PAT. OFF.



HOLOPHANE COMPANY, INC.

Lighting Authorities Since 1898 • 342 MADISON AVENUE, NEW YORK 17, N. Y.
 THE HOLOPHANE COMPANY LTD., THE QUEENSWAY, TORONTO 14, ONTARIO



Major Surgery, Chestnut Hill Hospital, Philadelphia, Penna.

**Eighteen Beams Concentrate Glareless, Shadowless,
 Comfortable Light on the Operating Area . . .**

The Holophane Major Surgery Lighting System consists of 6 triple CONTROLENS* units with eighteen light beams which converge to provide (1) a high intensity spot on the operating area (2) a wider area of gradually diminishing light over the entire table (3) correct degree of balanced general illumination throughout the surgery . . . The light on the operating table is without glare, interfering shadows or objectionable heat . . . Location of the lighting system remote from the anesthesia zone eliminates hazards of explosion; multiple lamping minimizes danger of interruption from lamp burnouts . . . The system is economical to maintain, easy to keep clean. Built-in ceiling arrangement gives the entire room a neater, more modern appearance.

Write for Latest Holophane Book . . . "Guide to Hospital Lighting" . . . Available without charge.

Deg
HOLOPHANE COMPANY, INC.
 342 Madison Avenue, New York 17, N. Y.

Please send your "Guide to Hospital Lighting" without charge.

Individual _____

Organization _____

Address _____

ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

PRODUCTS

(Continued from page 190)

and comes in 6-ft standard lengths with satin grey finish. It may be painted to match counter, machine or baseboard. National Electrical Products Corp., Chamber of Commerce Bldg., Pittsburgh 19, Pa.

All-Weather Window

Solar Air-Flo Window units combine fixed glazed areas with louvered sections for ventilation at top, bottom or sides. The complete unit comes assembled and ready to install with all exterior trim furnished by the manufacturer.

The ventilator section includes built-in screens, removable from the inside.



ARCHITECTS: COOLIDGE, SHEPLEY, BULLFINCH AND ABBOTT

use Van's long experience on hospital food service

- The picture above of the main kitchen of the new sixteen-story Hartford Hospital well illustrates the work Van has done equipping hospitals large and small for food service for more than a century.
- When you see an unusually fine food service installation, you will undoubtedly find Van's name plate on the equipment.
- If you are planning food service equipment improvements, make use of Van's skill and experience. Illustrations of such installations are in Van's Book, available now.

The John Van Range Co.

EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD

DIVISION OF THE EDWARDS MANUFACTURING CO.

Branches in Principal Cities

429 CULVERT STREET

CINCINNATI 2, OHIO

A door serves to control and direct the flow of fresh air. The unit is weather stripped and insulated, and is said to be repellent to cold, rain and snow. Window areas are single, double or triple plate glass as desired, with narrow mullions and trim. Frames are of treated wood or extruded aluminum. A variety of stock sizes is available. Solar Air-Flo, Inc., Elkhart, Ind.



Baseless range permits custom-planned working height and storage arrangement.

Kitchen Range

The Akron electric range with the cooking units at the side of the oven is designed to fit in with varying architectural needs. It is designed to be mounted on a cabinet of architect's or designer's choice. The range, model no. 436-56, is adaptable where built-in features or saving of kitchen space is desired, according to the manufacturers.

Available in stainless or regular steel the range comes complete with seven switches, pilot light on burners, appliance receptacle and automatic time and temperature controls. The base is 57½ by 30 in.; the cook top 10¾ in. high, and the oven top 22¼ in. high. Associated Products, Inc., 20 S. Ontario St., Toledo, Ohio.

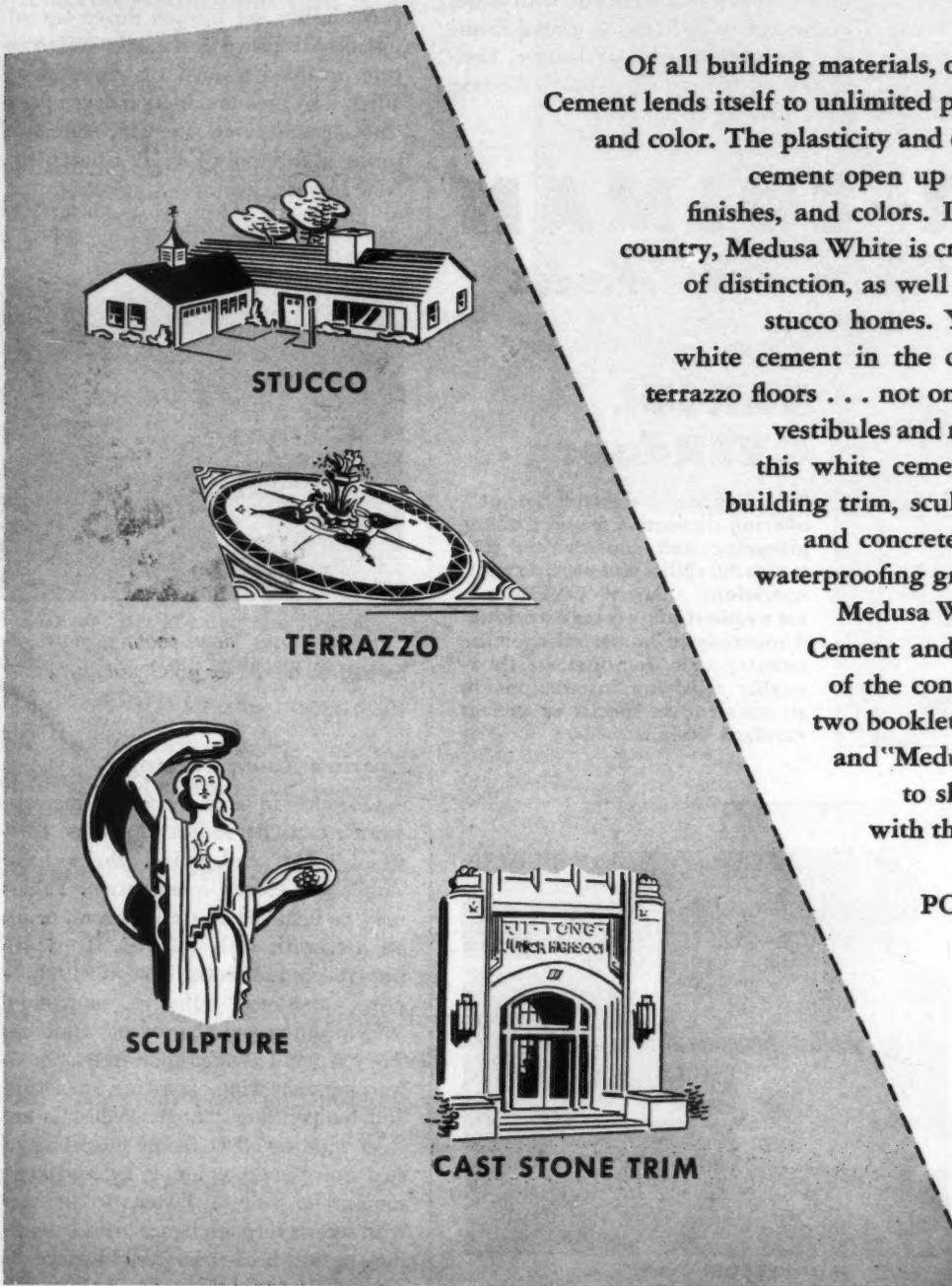
Built-Up Aluminum Roofing

Rey Kool roofing is constructed of a 17½-in.-wide sheet of stipple-embossed aluminum, factory laminated to one side of a 36-in. width, 15-lb, asphalt roofing felt. Laid according to conventional practice, succeeding courses are lapped over exposed felt and ½ in. of the aluminum. This provides a double layer of protected felt.

Features of the use of aluminum include insulation qualities and fire resistance. Factory lamination of the aluminum and felt is said to provide a better weather seal and save time and labor on the job. The roofing comes in 40-lb rolls containing 72 lineal ft. Reynolds Metals Co., Building Products Div., 2000 S. Ninth St., Louisville, Ky.

(Continued on page 194)

Possibilities Unlimited



Of all building materials, only Medusa White Portland Cement lends itself to unlimited possibilities in modern design and color. The plasticity and extremely white color of this cement open up an endless choice of shapes, finishes, and colors. In practically every civilized country, Medusa White is creating large stucco buildings of distinction, as well as charming white or tinted stucco homes. You'll also find this original white cement in the colorful matrix of beautiful terrazzo floors . . . not only in buildings but in home vestibules and recreation rooms. In addition, this white cement is creating cast stone for building trim, sculpture work, white concrete, and concrete slabs. Medusa White, with waterproofing ground in at the mill, becomes Medusa Waterproofed White Portland Cement and repels water at the surface of the construction. We have prepared two booklets, "A Guide to Finer Stucco" and "Medusa White Portland Cement," to show you how to build better with this modern building material.

Write for them. MEDUSA
PORTLAND CEMENT CO.,
1015-1 Midland Building,
Cleveland 15, Ohio.

You can build BETTER with
MEDUSA  **PRODUCTS**

REG. U. S. PAT. OFF.



ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

PRODUCTS

(Continued from page 192)

Shatter-Resistant Mirror

A new washroom mirror has been developed for use in public buildings. The shatter-resistant glass used is said to withstand a shock four to five times

greater than ordinary plate glass and, when broken, to disintegrate into harmless granules.

The mirror, Type-5000-H, is silvered by a special process, reportedly giving one of the most durable finishes. It is furnished in any desired size with either a rounded or flat chrome-plated frame and invisible theft-proof hanger. Conroy-Prugh Glass Co., 1430 Western Ave., Pittsburgh 12, Pa.

Low Cost Door Check

The Dynamatic door closer is claimed to be more compact and cost less than other well known types. Designed to control interior doors weighing from 15 to 175 lb, the unit, according to the manufacturer, will never need any maintenance, spring adjustment, ratchet wrench, or any oil or grease application. According to the manufacturer, it is permanently set by one finger tip adjustment, is sealed against dirt and moisture, guarded against rust, and never affected by pressure, friction or temperature changes. New England Manufacturing and Supply Co., 42 Church St., New Haven, Conn.

BARBER-COLMAN

Products for Up-to-date Homes



RADIO CONTROL FOR GARAGE DOORS

Here is a really modern home utility that is rapidly gaining in popularity. The driver simply pushes a button inside the car, and automatically the garage doors open or close! A great convenience day or night and, in stormy weather, a valuable protection. Barber-Colman Company has pioneered in the development and manufacture of successful radio control equipment since 1928.



SEE BARBER-COLMAN PRODUCTS AT THE NAHB EXPOSITION

Chicago, the Stevens Hotel, February 19 to 23rd, at the Annual Convention and Exposition of the National Association of Home Builders — see the favorite Model 50 Barcol OVERdoor set up for hand operation, and

the new Model 31 Barcol OVERdoor equipped with the newest Barcol Electric Door Operator and Radio Control. See why these quality products are worth considering for every new or remodeled up-to-date home.

FACTORY-TRAINED SALES and SERVICE REPRESENTATIVES in PRINCIPAL CITIES



BARBER-COLMAN COMPANY

102 MILL ST. • ROCKFORD, ILLINOIS



Classroom uses new seating units arranged on an arc for good visibility

Lecture Room Seating

Designed to save space and increase seating capacity in lecture rooms, Universal tables and swivel chairs have simple and sturdy construction. Tables may be installed in straight rows or on an arc, with ends mitered. Tops are heavy, cored plywood, bonded with hot-press, urea-resin adhesive, and have tongue-and-groove hardwood framing. They are said to offer great resistance to warping, checking, splitting, moisture and temperature change. Pedestals are steel with an offset flange mounting of cast iron providing ample leg and knee room. The pedestal fastens to the top with screws through flange arms extending the width of the table. Finished in lacquer, the tables are 29 in. high, 16 to 24 in. wide; lengths are available as desired, usually in two-pupil sections.

The swivel chairs are designed to permit a wide alley of access. Both tables and chairs have circular base plates for attachment to the floor. American Seating Co., Grand Rapids 2, Mich.

(Continued on page 196)

for the people

FOR the people is this handsome Memorial Auditorium with its attractive terrazzo floors and stairs. *For the people* also is the permanent, non-slip protection given these floors and stairs by the use of ALUNDUM terrazzo aggregate.

ALUNDUM terrazzo aggregate will give any terrazzo floor or stairway two added advantages: positive, permanent, non-slip protection even when wet, and greatly increased wear resistance.

For the people are the non-resonant and comfortable walking qualities of ALUNDUM terrazzo floors. Available in a wide variety of colors, ALUNDUM terrazzo aggregate combines attractiveness with its non-slip protection and wear resistance.

For lobbies, foyers and entrances, and for ramps and precast stair treads, you can combine common-sense with good taste and add safety to attractiveness by using ALUNDUM terrazzo aggregate.

See our catalog in Sweet's (SA and SE) or write for our free catalog, number 1935.



Other Norton non-slip floor products are Alundum aggregate for cement floors, Alundum stair and floor tile, and Alundum ceramic mosaic tile. All of these serve the public by making your floors, ramps or stairs permanently non-slip.

NORTON
NON-SLIP FLOORS

NORTON COMPANY
Worcester 6, Massachusetts



**It's the
Hi-Density Lead
that makes
MICROTOMIC
"VAN DYKE"
your one best bet
for tracings
that "Come Clean"
in reproduction!**

Top that off with true **UNIFORMITY OF GRADING** and you have every reason for preferring **MICROTOMICS** 18 degrees, from 9H to 7B.

TRADE MARKS REG.
U. S. PAT. OFF.

**The
EBERHARD
FABER**

Drawing Pencil

AT BLUEPRINT & ENGINEERING SUPPLY HOUSES

ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

PRODUCTS

(Continued from page 194)

Plastic Asbestos Flooring

Terraflex floor tiles, 9 in. square by $\frac{1}{8}$ in. thick, are available in 12 marbleized colors. Reportedly, they do not fade or change with use, and are unaffected by grease, oil, alkaline moisture and mild acid solutions. The tiles are applicable over any type of base, and are said to be flexible enough to conform to unevenness in floor or normal building movement. The marbleizing goes all the way through the tiles for long wear. Johns-Manville, 22 E. 40th St., New York 16, N. Y.



Flexible wall lamp adjusts for height

Lighting Fixtures

Four new lamps designed by Greta von Nessen feature extreme flexibility. Swivels and extensions allow adjustment for both angle and height. The group includes two floor lamps, a wall lamp and a table lamp. All are simply designed. Satin chrome is used for arms and bases; natural cherrywood or rosewood for bases; frameless plasticized fabric, glass fiber and spun aluminum for shades and reflectors. Nessen Studio Inc., 40 E. 21 St., New York, N. Y.

Wall and Ceiling Panels

Marlite plastic-finished wall and ceiling panels now include 10 new wood (Continued on page 198)



Only Revolving Discharge Can Provide Thorough Heat Circulation in Industrial Plants

WING Revolving Unit Heaters give more uniform heat distribution in any building. But it is recognized that many standard industrial building designs present serious heating difficulties because of height, peculiarities in shape, exposure, or bulky equipment installations. Buildings of this type cannot be heated satisfactorily by stationary discharge unit heaters which focus streams of heat at one or more fixed points. The limited coverage provided by such heaters makes necessary a larger number of units — resulting in too great a concentration of heat, and prohibitively high original cost.

Wing
Revolving
Discharge
Outlets



Turn Slowly
Through a
Complete
Circle

WING Revolving Heaters are specifically designed to overcome the limitations of stationary discharge unit heaters, and assure the thorough distribution of warmth required for proper, healthful plant heating. The discharge outlets of the Wing Revolving Heater move slowly through a complete circle, covering successively every direction with gentle, invigorating warmth. Because the heated air is constantly circulating in different directions, all working areas are thoroughly covered, even to the most remote corners. Uniform, comfortable, healthful temperatures over the entire plant area are assured. Investigate Wing Revolving Heaters for your next design by writing today for your copy of Wing Bulletin HR-5.

L.J. Wing Mfg. Co.

151 W. 14th St., N. Y. 11, N. Y.

Factories: Newark, N. J. • Montreal, Canada

Manufacturing Licensee for Wing
Unit Heaters in Western Europe

WANSON

9, rue Mogador, Paris 9e, France
222, rue Royale, Brussels, Belgium

Wing
Revolving
UNIT HEATERS

New Prudential building uses
**FIBERDUCT
UNDERFLOOR
RACEWAYS**
 for a really modern wiring system



Highly dramatic, carefully planned, the Prudential Insurance Company's new Western home office now brings another example of modern workability to the Southern California scene. Realizing the need for a modern, flexible wiring system that matched the workability of the building itself—Wurdeman & Becket, architects, specified a G-E Fiberduct raceway system. This triple-duct system utilizes approximately 80,000 feet of G-E Fiberduct raceways, and supplies three completely separate channels for telephone, signal, and electrical distribution. It provides for immediate wiring changes as personnel are moved, partitions shifted, and business machines and phones are added.

Tomorrow's electrical demands won't find the new Prudential building wanting. Its system of General Electric Fiberduct underfloor raceways will provide complete electrical flexibility in the years to come. When new outlets are needed, when distribution changes are necessary, this underfloor system can provide these facilities at any time.

General Electric Fiberduct raceways give building management complete freedom of floor arrangement, because they permit the installations of outlets at any point along the duct line—at any time during the life of

the building. These nonmetallic raceways provide ample capacity for future electrical requirements. In monolithic or slab and fill type of construction they provide an over-all raceway pattern that makes circuits available throughout the floor area.

To provide a new outlet it is only necessary to make a small opening in the floor over the raceway, pull the wires through, and install the outlet. New distribution can be added simply by pulling wires through the ducts. It's as quick and easy as that—the job is done at low cost with no interruption of the building's facilities.

Get complete details on G-E Fiberduct

We've prepared a new 80-page book that gives the complete G-E Fiberduct story. It's packed with the facts you'll want to know—wiring diagrams, installation details, descriptions, and other valuable information. To get your free copy fill in and mail the coupon below.

Section C24-25
 Construction Materials Department
 General Electric Company
 Bridgeport 2, Connecticut

Please send me a free copy of the 80-page book "Fiberduct Data Manual."

Name _____ Title _____

Company _____

Street _____

City _____ Zone _____ State _____

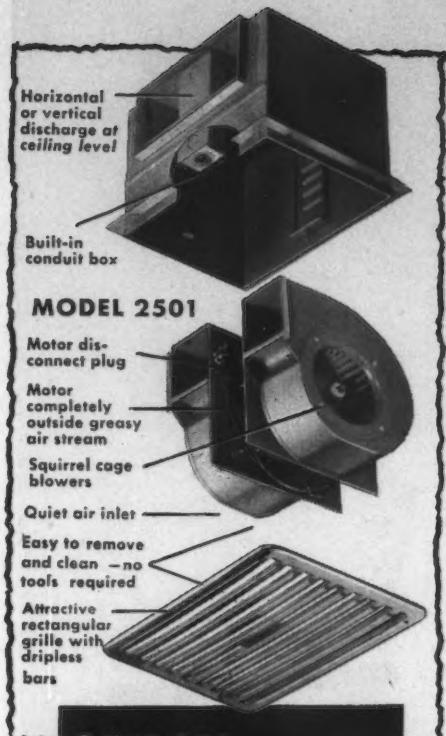
GENERAL ELECTRIC

ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

PRODUCTS

(Continued from page 196)



ONLY THE
TRADE-WIND
CLIPPER
HAS ALL THESE
ADVANTAGES

FOR the best method of ventilating kitchens, bathrooms, laundries, dens or other small rooms specify and install the Trade-Wind Clipper. This proven ventilator is the only small room unit that gives the home owner every worthwhile advantage.

Squirrel cage blowers, accepted and used in air conditioning systems and for forced air heating, are used exclusively in the Trade-Wind Clipper. This forced air discharge, located at the ceiling, traps all unwanted air and expels it instantly. Trade-Wind also has located the motor completely outside the greasy air stream. The motor stays clean indefinitely—requires far less service—and is guaranteed for 5 years. No other small room ventilator combines all these outstanding advantages. In addition, Trade-Wind Clippers are easy to install—they are competitively priced*—and they make every new owner another salesman for the Trade-Wind line.

Get the complete story from your local supply source, or mail the coupon today.

*Important price reduction has just been made on Model 2501.

MAIL THE COUPON TODAY

TRADE-WIND MOTORFANS, INC.
5707 S. Main St., Los Angeles 37, Calif.

Please send me the complete story on the Trade-Wind Ceiling Ventilator.

Name _____

Address _____

and marble patterns. Five of the patterns reproduce the grain and finish of wood: quartered Prima Vera (hickory gray or natural), walnut, oak, and striped mahogany. Panel sizes are 48 by 72 in. or 48 by 96 in.

Panels of the marble patterns are 32 by 48 in. and 96 by 48 in. The panels are said to be dirt, grease and moisture proof, and may be applied over any wall surfaces in new or old construction. Marsh Wall Products, Inc., Dover, Ohio.

Combination Window Unit

Insulex Unit Fenestration combines light-directional glass block and a conventional double-hung window in a single prefabricated unit. The glass block is said to diffuse and reflect light over the room and to reduce glare, contrast and the need for shading devices. Two types of prismatic block are available, each reputed to have the same thermal insulating value as 8 in. of brick—No. 351 for ordinary conditions and a special design for severe sun exposures. The lower clear glass portion can be raised for ventilation.

The unit is available in sizes to 4 ft 8 in. by 10 ft 2 in. max., and can be installed like ordinary double-hung windows in single, multiple or continuous units in new construction or to replace worn-out sash. American Structural Products Co., Toledo 1, Ohio.

Aluminum Siding

New features incorporated in the design of *Kaiser Aluminum* clapboard siding include: wide flat at top edge for more contact at joint; upper half flattened for greater wall contact; lower section curve increased to prevent buckling; joint housing deepened for easier fitting; and nailing slots moved closer to lower edge for easier installation.

The siding is said to have a weather tight tension seal, long life, freedom from rust and reflective insulating qualities. Courses are $7\frac{1}{8}$ in. with a weather exposure of $6\frac{1}{8}$ in. Made in both .030 and .025 gages, it is available in 10-, 12-, 14- and 16-ft lengths. Kaiser Aluminum & Chemical Sales, Inc., 1924 Broadway, Oakland, Cal.

(Continued on page 200)



Naval Medical Center, Bethesda, Md.
Minwax Weathercap used to protect masonry joints.

There's more to **WATERPROOFING** than meets the eye

- There are two types of waterproofing problems . . . preventive and corrective. When a building is intelligently waterproofed during construction, it enjoys long-term (often permanent) freedom from expensive water damage and corrective treatment. The architect shares in the owner's satisfaction.

During the past 42 years, many prominent architects, designers and contractors have made Minwax their Waterproofing Information Headquarters. Minwax Waterproofing Products have served thousands of their clients on schools, libraries, churches and other masonry structures. They look to Minwax for expert advice, recommendation of qualified contractors, and quality waterproofing materials.

When you have a waterproofing problem, why not call on Minwax? There's not the slightest obligation. Minwax Company, Inc., Dept. AR-2, 11 West 42nd Street, New York 18, N. Y.

SEE OUR CATALOG IN SWEET'S

See Sweet's for full product information about Minwax Clear and Colorless Protective Treatments, Caulking Compounds, and Minwax Weathercap for masonry joint protection; also Minwax Brick & Cement Coating, Membrane and Spandrel Waterproofings.



MINWAX TRADE MARK

A COMPLETE
WATERPROOFING
SERVICE

TUF-FLEX DOORS



Architect: Horace M. Coy, Toledo, Ohio

accent
the invitation
of a
VISUAL FRONT

Visual Front design is based on the principle that when people can see in—more come in.

What better place to remove barriers to visibility than in entrance doors? That's just what *Tuf-flex** doors are for. They're clear plate glass, $\frac{3}{4}$ " thick, tempered to withstand impact and general rough treatment. They give you an opportunity to design for smart appearance—and for practicality.

All *Tuf-flex* glass doors are furnished complete, equipped with cast bronze or alumilited aluminum fittings, which are designed to receive standard pivot hinges and other builders' hardware. *Tuf-flex* doors are available in a variety of designs and hardware finishes to meet your requirements.

Tuf-flex doors are widely used in many places other than storefronts. Their transparency and smart design make them ideal for public buildings, offices, apartments, hotels, hospitals, banks, and many other uses.

Get in touch with an L·O·F Distributor for full information on *Tuf-flex* doors—sizes, hardware, installation details. And write us for our illustrated *Tuf-flex* book, plus our A.I.A. File Folder on design details.

*®

**GLASS MAKES IT A VISUAL
FRONT**

LIBBEY·OWENS·FORD

Libbey-Owens-Ford Glass Company, 6625 Nicholas Building, Toledo 3, Ohio.

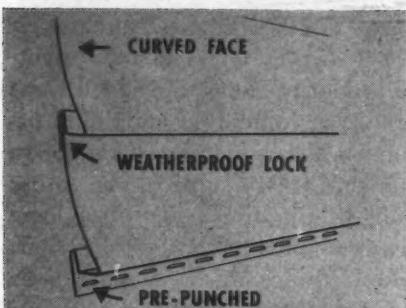
This siding has permanent, flawless beauty!

The beauty and quality of Kaiser Aluminum Siding can never be marred by knots, splits or sawing scars! It's precision produced, low in cost. Its flawless beauty will last generations!

Permanent, baked-on paint finish can't chip, crack or peel.



STRONG, DENT-RESISTANT. Can't rot, warp, crack or rust. Made of highest grade aluminum. Fire-resistant. Can't be damaged by termites.



CURVED SURFACE, installed under tension, makes rigid, sound-resistant, insulating siding with weatherproof joints, beautiful shadow lines without wrinkles. Easy to apply. Low construction costs!

Meets FHA requirements for new construction. Write for free AIA file. Kaiser Aluminu. Siding is produced by Kaiser Aluminum & Chemical Corporation.

Kaiser
Aluminum
SIDING

Sold by Kaiser Aluminum & Chemical Sales, Inc.
Kaiser Building, Oakland 12, California

PRODUCTS

(Continued from page 198)

Dumb Waiter

The Sedgwick Under-Counter Dumb Waiter, of all-metal fireproof construction, comes in a complete and self-contained unit. It is designed for capacities up to 300 lb and is suitable for fountain service, back-bar, or other scant headroom conditions.

The compact unit is said to be easily installed; usually employs a car about 24 in. wide, 20 in. deep and 26 in. high, fitted with a removable shelf. A hand crank is provided. Sedgwick Machine Works, 90 Eighth Ave., New York 11, N. Y.

Plastic Wall Tile

Skyline Over-Lock plastic tiles feature a locking edge which reportedly permits each tile to be quickly and firmly locked into place. Tiny perforations in flanges force cement through to the adjacent tile for a strong bond. Between tile grouting is unnecessary.

The tiles are supplied in several shapes, including inside and outside corners, half tile, feature strips and cove bases. Finishes include marbleized, mother-of-pearl, standard and pastel colors. Surfaces are highly glazed and said to be resistant to scratching, impact and most household corrosives. The lightweight, washable tiles have beveled edges and require no metal moldings. Skyline Industries, Titusville, Pa.

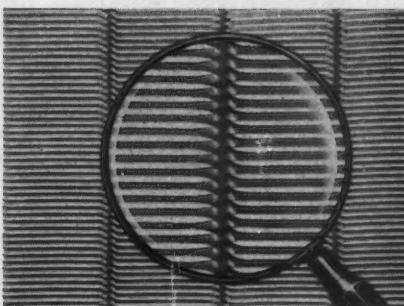
Compact Garbage Disposer

The National Shorty disposer, model 35-CS, is designed 5 in. shorter than the standard model for connection to most wall wastes without major plumbing changes. The new unit roughs in at 18 to 19 in. from the floor line and 8½ to 9½ in. below the bottom of the sink bowl. Overall length is 15 in.; weight is 36 lb. It is equipped with a high-torque ½ hp motor, and includes such features as one-piece safety cover control, optional flow interlock, and a quickly demountable and interchangeable power unit for easy installation and service. Appliance Div., National Rubber Machinery Co., Akron, Ohio.

New screening device keeps hottest rooms cooler!

Thin louvers set close together at an angle against the sun make Kaiser Aluminum Shade Screening the lowest cost screening and cooling device you can put on a window!

It deflects sun's hot rays without blocking the view. Thus, hottest rooms are as much as 15° cooler, yet light and airy.



PRECISION PRODUCED from tough, high grade aluminum. Can't rust or stain. Never needs paint. Adds extra beauty to any window, extra value to any home.



PROTECTS INTERIORS against sun fading. Low in cost. Easily installed. Keeps out insects. Available from sash and screen manufacturers and building material jobbers.

Write for free AIA file. Kaiser Aluminum Shade Screening is produced by Kaiser Aluminum & Chemical Corporation.

Kaiser
Aluminum

SHADE SCREENING

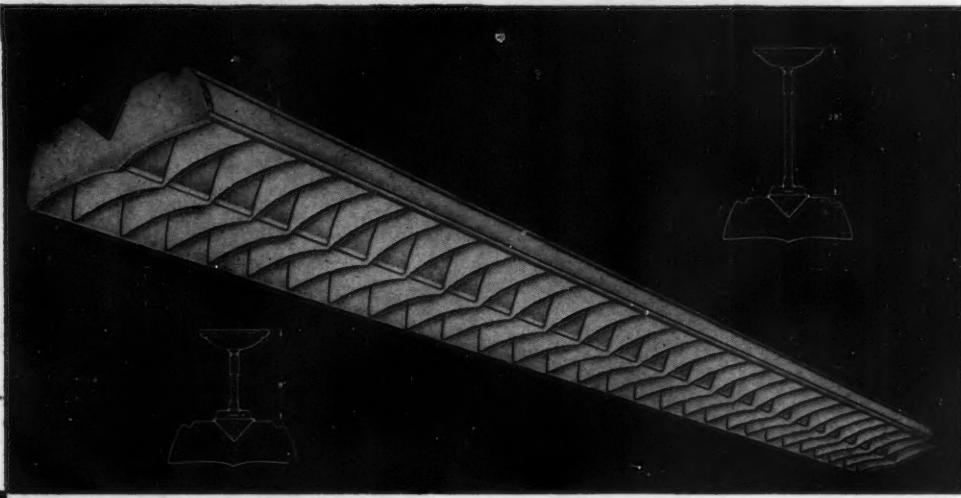
Sold by Kaiser Aluminum & Chemical Sales, Inc.
Kaiser Building, Oakland 12, California

NOW!

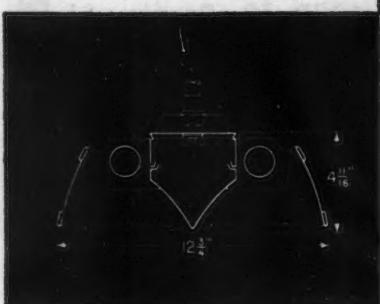
LUVEX

DAY-BRITE'S
NEW!

For two 96" T-12 Slimline lamps,
single unit or continuous installations.
For suspension mounting, listed with
8" and 28" "A-J" Adjustable hangers.



469



"DECIDEDLY BETTER" SLIMLINE

Once in a blue moon, a truly great fixture makes its appearance. Now, after years of research and designing, the matchless new Day-Brite "LUVEX" is ready.

All the usual advantages of Slimline, of course—instant starting... extremely high efficiency.

But then, add these "LUVEX" extras—sturdy, no-sag, heavy gauge steel chassis, enclosure and louvers completely interlocked into a rigid one-piece unit, quick, easy installation and smart appearance—and the "LUVEX" is absolutely everything you expect of Slimline lighting.

Maintenance? Simple! So simple, in fact, that

the "LUVEX" can be relamped and cleaned without disturbing a single part of the fixture—without so much as touching a latch, chain, nut or bolt!

Get the full "LUVEX" story. It will pay you to know all the facts about this remarkable new Day-Brite development. Write today for Bulletin 10-M.



Distributed nationally by leading electrical wholesalers
Day-Brite Lighting, Inc., 5465 Buena Ave., St. Louis 7, Mo.
In Canada: Amalgamated Elec. Corp., Ltd., Toronto 6, Ontario

YOU SPECIFY
THE OPENING
SIZE



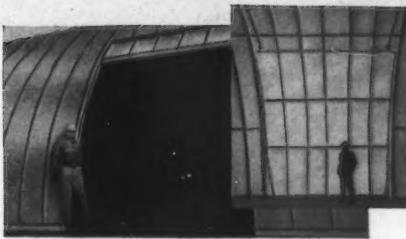
TAYLOR
WILL FURNISH
THE GARAGE DOOR



JACK-KNIFE DOORS



RECEDING DOORS



CURVED DOORS FOR QUONSET

Got a door problem? No matter what size the opening—how difficult the operation may be, you can close it with a TAYLOR-MADE Door.

Available with four distinct types of operational hardware—jack-knife, receding, canopy or sliding—TAYLOR-MADE Doors are engineered and manufactured by practical garage door men, backed by years of actual manufacturing and installation experience. We make insulated doors to control heat loss.

SEND SPECIFICATIONS FOR ESTIMATES



Write for
Bulletin

R. L. TAYLOR
INC.

12480 EVERGREEN ROAD
DETROIT 2B, MICHIGAN

LITERATURE

(Continued from page 140)

Portable Lamps

Originals by Kurt Versen. Folder pictures 13 portable and pin-up lamps with description and recommended lamp wattage. Color swatches show finishes available. 13 pp., illus. Kurt Versen Lamps, Inc., Englewood, N. J.

Air Diffuser

New Square Anemostat Aspirating Air Diffuser Types E & E1 (Bulletin 29A). Covers features, description and installation photographs of the units. Tables list dimensions, capacity and performance data. Mounting and assemblies are shown. 4 pp., illus. Anemostat Corp. of America, 10 E. 39th St., New York, N. Y.*

Master Clocks

Cincinnati Time Indicating & Signaling Systems. Booklet shows line of master clocks, gives operating principles and wiring charts and diagrams. Program machines, repeat clocks and time signaling equipment are also included. All are covered by specifications. 22 pp., illus. The Cincinnati Time Recorder Co., 1741 Central Ave., Cincinnati 14, Ohio.

Electric Heaters

Electromode Domestic Catalog (EC-63); Electromode Industrial Catalog (EC-62). Each catalog contains descriptions, specifications, illustrations and installation notes on various portable and built-in electric heaters. The second also includes wiring diagrams and data on control mechanisms. 4 pp., 8 pp., illus. Electromode Corp., 45 Crouch St., Rochester 3, N. Y.

Lighting Fixtures

Over-All Lighting by Wakefield (Catalog No. 50). Gives description, specifications, details and sections of several ceiling fixtures. Lighting design data and graphs analyze fixture performance and room lighting needs. Notes are included on maintenance and methods of hanging fixtures. 40 pp., illus. The F. W. Wakefield Brass Co., Vermillion, Ohio.*

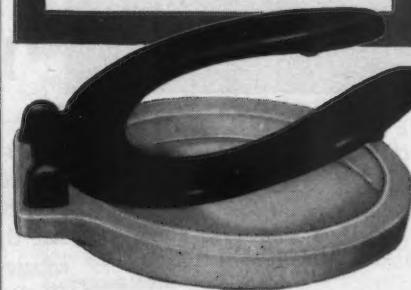
(Continued on page 204)

Designed To Stay Cleaner, Last Longer!



MODEL LP-20 — Durable solid plastic. Open front and back design cuts upkeep to a minimum, gives better sanitation. Self-raising hinge assures cleanliness.

MODEL 50 — Durable solid plastic. Equipped with self-sustaining hinge which holds seat in whatever position it is raised, eliminating fixture breakage from slamming or kicking.



WRITE NOW for details on models illustrated as well as the complete line of quality Sperzel seats. Dept. AR



New 3800-apartment development insulated throughout with

CELOTEX INSULATING SHEATHING

Above, a section of Glen Oaks Village in Bellmore, Long Island, N. Y. Celotex Insulating Sheathing was used throughout in this beautiful garden-type development which comprises 3800 modern apartments. Built by Gross-Morton of Jamaica, L. I., N. Y. Architect: Benjamin Braunstein.

*

More and more architects and builders across the nation are specifying Celotex Insulating Sheathing, instead of ordinary sheathing. Because this strong rigid insulation enables you to build better, more salable homes at lower cost. No other gives you all these important advantages and economies:

First, Celotex Insulating Sheathing saves you money on both materials and labor, because it insulates, builds and moisture-proofs, all at one low cost! Quick and easy to apply. Negligible waste. No building paper needed.

Second, Celotex Insulating Sheathing seals out excessive heat in summer. In winter, it cuts heat leakage through sidewalls, where authorities say most heat loss occurs. Thus, it assures a home that's far thriftier to heat, far

more comfortable the year 'round.

Third, Celotex Insulating Sheathing is the only sheathing made of long, remarkably strong Louisiana cane fibres. It is treated inside and asphalt-coated outside to make it double-waterproofed, yet it has more than twice the vapor permeability advocated by government agencies. And it is protected against dry rot, fungus and termites by the exclusive patented Ferox Process.

Yet to insulate and moisture-proof as you build with Celotex Insulating Sheathing costs NO MORE than uninsulated construction! Send now for booklet giving full technical details.

NOTE. Celotex Double-Waterproofed Insulating Sheathing used in combination with Celotex Insulating Lath, the superior plaster base, is the thrifty way to build the "Ideal Wall"—a stronger wall structure with BUILT-IN insulation! Write for details.

There's only one genuine
CELOTEX
REQ. U. S. PAT. OFF.
DOUBLE-WATERPROOFED INSULATING SHEATHING

Be sure you get the double-waterproofed boards
with the yellow CELOTEX brand

THE CELOTEX CORPORATION - CHICAGO 3, ILLINOIS



FREE! Send now for the informative new Celotex booklet, "How You Can Build Better Homes at Lower Cost." Gives complete technical details on Celotex Double-Waterproofed Insulating Sheathing.

Specify

Steeline

"PACKAGED"
ROOF SYSTEMS

and
SAVE BUILDING COSTS

PITCH ROOF SYSTEMS

FLAT ROOF SYSTEMS

In designing industrial and commercial buildings you can save your client money and time by specifying a Steeline complete "packaged" roof system. Each system is furnished complete from the eave line up. No columns required in the side walls. Pitch roof systems are structural framework and heavy galvanized steel roof sheets. Flat roof systems consist of structural steel trusses, bridging and steel deck. Both of these Steeline Roof Systems are easy to insulate. Write for more complete information . . . Fill in and mail the coupon below.

All Steel Buildings also available.

I am interested in:

-Pitch Roof Systems
-Flat Roof Systems
-All Steel Buildings
- Width.....Length.....Height

NAME _____

ADDRESS _____

CITY _____ STATE _____

CAREW STEEL PRODUCTS CORP
YORK 3 PENNSYLVANIA

ARCHITECTURAL ENGINEERING

TECHNICAL NEWS AND RESEARCH

LITERATURE

(Continued from page 202)

Stage Lighting

Century Theatrical Lighting (Catalog No. 1). Covers layouts and lighting schedules for large and small stages, and gives description, beam spread, dimensions, and other data on lighting devices. These include: spotlights, floodlights, striplights, special effect equipment, control equipment, music lights. Also listed are data on color media, lenses, lamps, mounts and wiring. 46 pp., illus. Century Lighting, Inc., 419 W. 55 St., New York 19, N. Y.*

LITERATURE REQUESTED

The following individuals and firms request manufacturers' literature:

Benjamin Bailyn, Architect, Industrial Designer, 1272 E. Laurelton Parkway, Teaneck, N. J.

Robert L. Chalmers, Architect, 63 Parker Road, Elizabeth, N. J.

Joel H. Cooper, Architect, 2064 Cropsey Ave., Brooklyn 14, N. Y.

Public Recreation Commission, Court House Annex, 1100 Sycamore Street, Cincinnati 2, Ohio.

Stewart S. Granger, Architect, 3006 Wilshire Blvd., Los Angeles 5, Calif.

Harold B. Hardsog, Architectural Engineer, 4416 St. James Ave., Dayton 6, Ohio.

David M. Leaf, Gillis & Leaf, Architects, 727 Santa Barbara Road, Berkeley 7, Calif.

Abraham D. Levitt, Registered Architect, 1259-46th St., Brooklyn 19, N. Y.

H. Edwin Nicholson, Instructor in Architectural Engineering, University of Texas, School of Architecture, Austin 12, Texas.

Albert J. O'Neill, Room 5-008, Dept. of Building Engineering and Construction, Massachusetts Institute of Technology, Cambridge 39, Mass.

Marion Contracting Corp., 139 East Center St., Marion, Ohio.

Turpin, Wachter & Associates, Consulting Engineers, 1004 N. Charles St., Baltimore 1, Maryland.

N. H. Williams, the Delaware and Hudson Railroad Corp., Oneonta, N. Y.

Walter Zick, A. I. A. & Harris Sharp, A. I. A., 1806 S. Main St., Las Vegas, Nevada, P.O. Box 1808.

The RESTORATION of COLONIAL WILLIAMSBURG

A Reprint
of the December, 1935
Issue of

ARCHITECTURAL RECORD

104 pages, bound in cloth
\$2.50 per copy

The Colonial Williamsburg Number of ARCHITECTURAL RECORD — issue of December 1935 — was sold out soon after publication but the entire editorial contents have been reprinted and bound in permanent book form with blue cloth covers.

Many thousands of these Williamsburg reprints have been sold but the demand continues unabated.

ARCHITECTURAL RECORD
119 W. 40th Street, New York, N. Y.

Enclosed is \$.....for which send..... copies of your reprint, *The Restoration of Colonial Williamsburg*, bound in cloth, at \$2.50 per copy. {Add 2% Sales Tax for New York City deliveries.}

Name.....

Address.....

City and State.....A.R. 2-30



Photos by Sigurd Fischer

1. Exterior view of the new Saint Clare's Hospital, Schenectady, N. Y.; York & Sawyer, architects.

2. Operating room showing Castle No. 12 Operating Light.

3. Central Supply. Designed and located to process all sterile goods for use throughout the hospital.

Saint Clare's Hospital, Schenectady — equipped with Castle Sterilizers and Lights

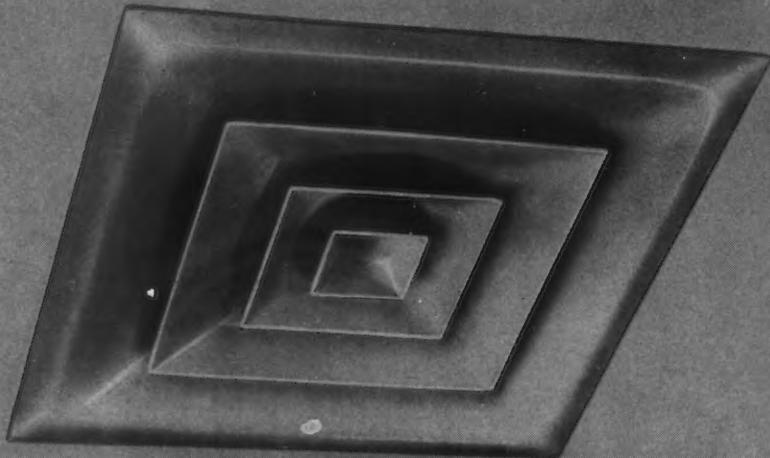
Another complete installation of Castle Equipment is contributing its part in the daily protection of the patients in this splendid new hospital.

The carefully planned arrangement of facilities and their application sets a new pattern of practical efficiency for the Sterilizing Divisions of this hospital.

Castle Engineering Service is available to you if you are contemplating any improvements or changes to your institution. Suggestions are free and are based on more than sixty-nine years of continuous service in this critical field. Write: Wilmot Castle Company, 1258 University Ave., Rochester 7, N. Y.

Castle **LIGHTS AND STERILIZERS**

NOW!



When Specifications Call For **SQUARE** Air Diffusers

You Can Install **ANEMOSTAT** AIR DIFFUSERS

When air diffuser specifications read "square", you can now give your customers the new square Anemostat Air Diffusers. They offer the same aspiration effect—the same draftless, uniform distribution of air—as the circular Anemostats. These new Square Diffusers, protected by patents, assure complete air diffusion over a full 360° area.

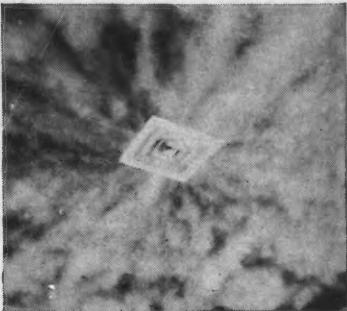
The new square Anemostats are available in two basic models. Type E fits without modification into the framework that holds standard size acoustical and egg crate ceilings. Type E-1 is flanged to cover the

opening in a regular ceiling.

The simple snap-on method of installing these new square Anemostat Air Diffusers will save you time and labor. Both inner assembly and equalizing deflectors are just snapped into place.

Now you can install square—as well as circular and semi-circular Anemostat Air Diffusers—and be sure of top-quality performance. For full information on the new square Anemostat, write for Bulletin 29A. Bulletins on other types of Anemostats available on request.

ANEMOSTAT
OFFERS COMPLETE
CIRCULAR DIFFUSION
from a square outlet



This unretouched smoke test photograph shows how the new square Anemostat diffuses air completely over a 360° area.

**Only Anemostat provides
effective aspiration**

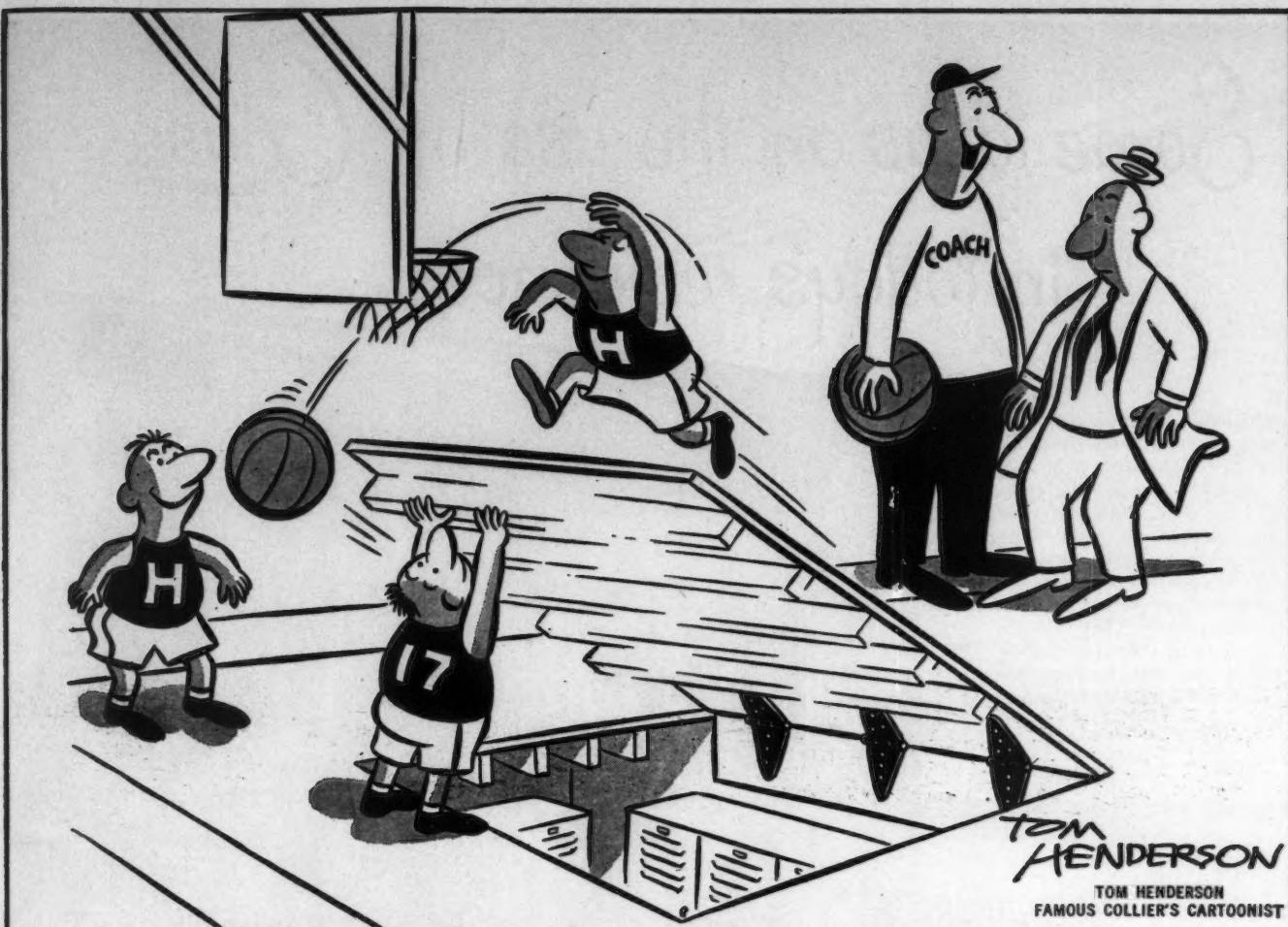
Due to its special design, the Anemostat distributes air of any duct velocity in a multiplicity of planes traveling in all directions. Simultaneously, the unit creates a series of countercurrents traveling toward the device which siphon into the device room air up to 35% of the supply air depending on the type and size of the unit. This room air is mixed with the supply air within the Anemostat before the air mixture is discharged into the enclosure.

ANEMOSTAT® DRAFTLESS Aspirating AIR DIFFUSERS

ANEMOSTAT CORPORATION OF AMERICA
10 EAST 39th STREET, NEW YORK 16, N. Y.
REPRESENTATIVES IN PRINCIPAL CITIES

"NO AIR CONDITIONING SYSTEM IS BETTER THAN ITS AIR DISTRIBUTION"

AC 1239



TOM HENDERSON
TOM HENDERSON
FAMOUS COLLIER'S CARTOONIST

"Those midgets haven't lost a game
since I showed 'em how . . .

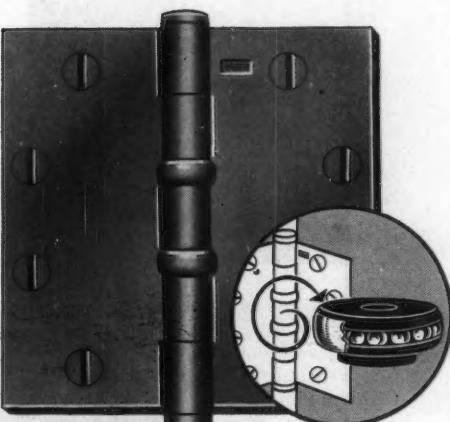
Everything Hinges on Hager!"

The WEIGHT Swings on HARDENED STEEL...Not BRASS!

Knuckle weight is functionally engineered on Hager Ball Bearing Butts to lie against special hardened steel top races. The brass cup, which contains the races and the ball bearings, supports no weight...is subject to no erosive friction that may later wear out or impair performance.

Highest quality chrome steel balls allow the knuckle to glide smoothly and evenly over tempered steel races. Leaves are beveled at the joint. Trim, square outer edges are finely milled sharp and clean.

Specify Hager "BB" Butts on jobs calling for average frequency door service. Hager Frictionless ball bearing gliding action permits even the heaviest doors to silently float back and forth.



HAGER BB 1193 FBT
BRASS BUTTON TIP BALL BEARING BUTT
For added beauty and permanent trim appearance,
specify all-weather non-corrosive solid brass butts.

© 1949



C. HAGER & SONS HINGE MFG. CO. • St. Louis, Mo.

FOUNDED 1849 — EVERY HAGER HINGE SWINGS ON 100 YEARS OF EXPERIENCE

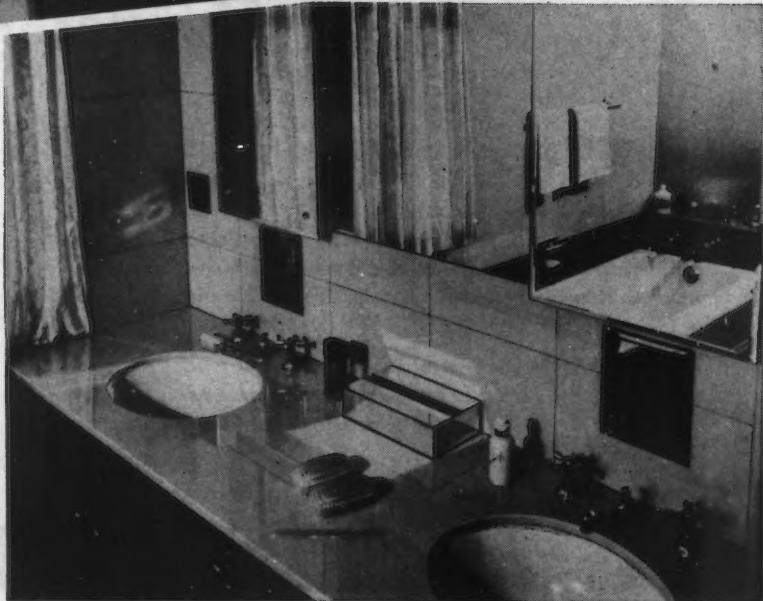
Some ideas on the use of Glass in today's residences

TRANSFORMING dull, passive rooms into bright, expansive, warm interiors. You can do that with Pittsburgh Mirrors. Moreover, they have the ability to increase the apparent size of small rooms. A wall covered with floor-to-ceiling mirrors can often solve a perplexing decorating problem. Pittsburgh Mirrors are obtainable in a variety of sizes and shapes—Venetian, or with modern or Period frames to conform to any scheme. They're available in a range of colors, and with silver, gold or gunmetal backing. Architect: Henry W. Johanson, Roslyn, New York.

Idea #1



Idea #2



DAYLIGHT IN ABUNDANCE. There are some places in the home where this is wanted, but privacy must be assured, too: In bathrooms, entrance-ways and stair-wells, for example. Pittsburgh Corning Glass Blocks are ideal here, because they meet these two requirements fully. What's more, they are actual money-savers for your clients. Their insulating properties cut heating bills and they hardly ever need repairs or replacement; never require painting.

Idea #3

PERMANENCE AND BEAUTY are what home owners want. Those are important reasons why so many of the country's foremost architects specify "the quality structural glass"—Carrara. It's an ever-lasting product—finely-machined and easily handled. Its joints are true and even. It's adaptable and versatile. It's impervious to moisture, acids, grease and pencil marks—the ideal material for bathroom and kitchen walls. There are ten beautiful Carrara Glass colors to choose from. Architect: Henry W. Johanson, Roslyn, New York.



TO FRAME THAT VIEW of the garden, road, pond or distant hills and make it a living picture for enjoyment from inside the house. Here Twindow, Pittsburgh's window with built-in insulation, is the logical answer. Twindow units are flawlessly transparent; have exceptional surface beauty. Architect: J. P. Trouhard, Washington, D. C.

TWINDOW is made up of two or more panes of Pittsburgh Polished Plate Glass, enclosed in a protective, long-lasting stainless steel frame. The hermetically-sealed air space between the panes offers effective insulation—minimizing downdrafts, cutting heat losses through windows, reducing condensation. Forty-five standard picture window sizes are available and are adaptable for either wood or steel sash. Twindow is another example of the extensive Pittsburgh research which helps to solve architectural problems by supplying materials that will produce better jobs.

DESIGN IT BETTER WITH— *Pittsburgh Glass*

Your Sweet's Catalog File contains a complete listing and description of Pittsburgh Plate Glass Company products.



PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS

PITTSBURGH PLATE GLASS COMPANY

Just Published!



128 pages,
Fully indexed
196 illustrations
Stiff, cloth binding
Size 8½ x 11
Includes list of
Breuer's major works . . .
full bibliography . . .
excerpts from speeches.

The Inspiring Life Story of a Great Contemporary Architect . . .

"Marcel Breuer: Architect and Designer"

by PETER BLAKE

"In addition to being a most accomplished artist in his own right, Marcel Breuer has formed a link between the turbulent days of the early twenties, when many of the technical and esthetic ideas that have produced the new architecture were first formulated, and the present day with its increasingly widespread acceptance of those ideas in this country and abroad. This book is an attempt both to document Breuer's own work and to emphasize the main points in the message he is trying to convey."

Peter Blake

Curator of Architecture and Design, Museum of Modern Art.

PETER BLAKE'S "Marcel Breuer: Architect and Designer" is that rare publishing achievement — a biography which captures wholly the essence and spirit of its subject.

The essential meaning of Breuer's career is made clear in this significant and well-documented book as his life and works are traced from his initial contributions to architecture and design at the famous Bauhaus School in Germany to the present time. Considerable space, incidentally, is devoted to the Bauhaus experiment under Walter Gropius which has been responsible for so many notable advances in architecture and design.

Includes Many Reproductions

Fortunately, the author realized that actual reproductions of Breuer's work would explain his growth more graphically than words. Thus, the book is profusely illustrated with plans, drawings and designs made at every stage of

the architect's career. In all there are 196 illustrations, giving fascinating glimpses of Breuer's talents in action; showing his increasing interest in architecture, as distinguished from furniture design, and his later pre-occupation with American techniques. The illustrative material includes not only Breuer's designs, but also the works of those who inspired him: the expressionists, Kandinsky and Klee as well as the rationalists, Maholy-Nagy, Albers and Gropius.

* * *

It is inconceivable that anybody could read Peter Blake's book without learning a great deal. But instruction is not its main concern, nor does it account for the book's intrinsic charm. That charm, rather, lies in its magical unfolding of the drama of a great human being — in the development of a talent which ripened with each new challenge.

Whether you read "Marcel Breuer: Architect and Designer" out of professional interest or for sheer enjoyment, your time will be well invested. Handsomely bound in stiff, cloth binding, distinctively illustrated, this 128-page book will be an important new addition to your library.

To obtain your copy, simply fill in and return the coupon below. Just off the press, printed in a limited edition, the book is now available to you at the price of \$4.00, including postage.

BOOK DEPARTMENT, ARCHITECTURAL RECORD
119 West 40th Street, New York 18, N. Y.

Enclosed is \$_____ for _____ copy(s) of "Marcel Breuer: Architect and Designer," by Peter Blake, at the price of \$4.00 per copy. (For N. Y. C. add 2% sales tax.)

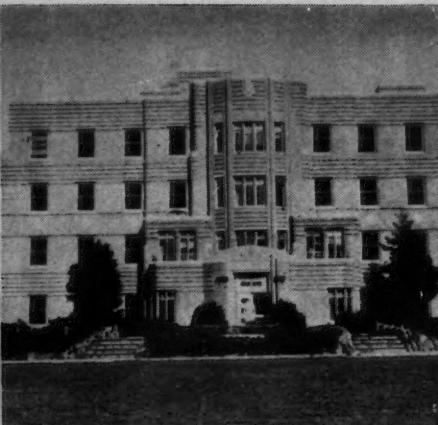
Name _____

Address _____

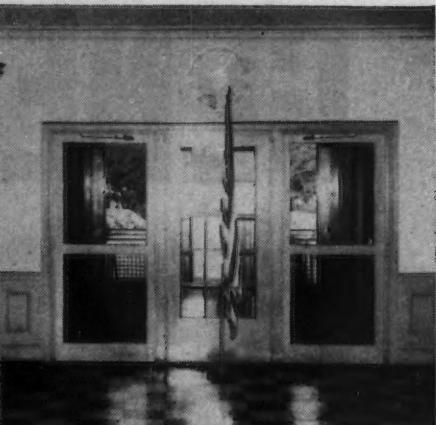
City _____ Zone _____ State _____



A total of 2200 Roddiscraft Solid-Core Flush Veneered Doors are in use at the United States Navy Medical Center in Bethesda, Maryland.



Roddiscraft Solid-Core Flush Veneered Doors are included in the permanent equipment of the modern Mercy Hospital in Rockville Centre, New York.



The new building of the Nassau Hospital, Mineola, New York, has Roddiscraft Solid-Core Flush Veneered Doors throughout.

Roddiscraft

SOLID-CORE FLUSH VENEERED DOORS PROVED IN HOSPITAL SERVICE

5 reasons why it pays to include these quality doors in your hospital construction plans



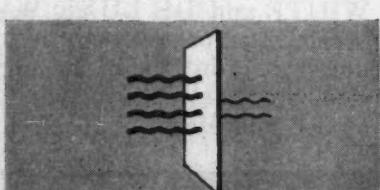
Identification and Guarantee—All Roddiscraft Solid-Core Flush Veneered Doors are guaranteed without qualification as to workmanship and materials. Inserted in the hinge rail of every door is a red, white, and blue dowel which permanently identifies the door.



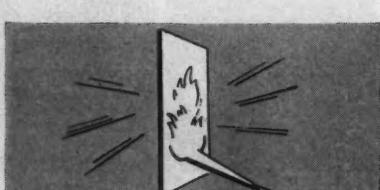
Resistance to Abuse—Roddiscraft Solid-Core Flush Veneered Doors easily withstand the punishment of heavy hospital duty. The entire door assembly is welded into a solid unit—permanently puncture-proof, waterproof, and resistant to decay.



Standard Thickness Face Veneers—Roddiscraft Standard Construction is a feature which adds to the durability of these Flush Veneered Doors. The Roddiscraft method utilizes Standard Thickness Face Veneers—as opposed to $\frac{1}{8}$ " and thicker veneers. Less moisture penetration — greater durability.



Sound Resistance—The high resistance of Roddiscraft solid-core construction to the passage of sound has been established by independently conducted laboratory tests. The standard $1\frac{1}{4}$ " Roddiscraft Solid-Core Flush Veneered Door develops an average sound transmission loss of 30.9 decibels.



Fire Resistance—One reason why Roddiscraft Solid-Core Flush Veneered Doors are ideal for hospitals is their exceptional resistance to fire. This fact has been established by independent laboratories, where standard Roddiscraft doors exceeded the 40-minute fire test.

Both from the standpoint of utility and safety, Roddiscraft Solid-Core Flush Veneered Doors measure up to the stringent requirements of hospital planners. The service record of these exceptional doors stands as proof in itself. Every day—in new hospitals and old—Roddiscraft Solid-Core Flush Veneered Doors are providing dependable, satisfactory service. It's no wonder that more and more hospitals are turning to Roddiscraft for their doors.

Write for book—"An Open and Shut Case for the Finest Flush Doors"—giving complete details and specifications of the Roddiscraft Door line.

Roddiscraft
RODDIS PLYWOOD CORPORATION
MARSHFIELD, WISCONSIN

Warehouses in

Cambridge, Mass.
Charlotte, N. C.
Chicago, Ill.
Cincinnati, Ohio
Dallas, Texas
Detroit, Mich.

Houston, Texas
Kansas City, Kansas
L. I. City, N. Y.
Los Angeles, Calif.
Louisville, Ky.
Milwaukee, Wis.

New York, N. Y.
Port Newark, N. J.
Philadelphia, Pa.
St. Louis, Mo.
San Antonio, Texas
San Francisco, Calif.

GENERAL ELECTRIC A BRIGHT NEW V

*Two new General Electric
white fluorescent lamps show
full beauty of all colors*



Colors take on new life

YOU'LL see colors come to life... fabrics and decorations take on new charm... complexions glow with new warmth... better than fluorescent lamps could ever show them before.

The secret is a revolutionary new phosphor, "D-R", which, in the inside coating of two

new General Electric fluorescent lamps, transforms the effect of the white light they give. With these new lamps—1) DE LUXE COOL and 2) DE LUXE WARM WHITE—excellent color rendition is achieved, and at the same time you are given a choice of cool or warm atmosphere.



Fabrics look their best

Cool effect or warm?

Now you can plan lighting to help create either a cool or a warm atmosphere—give clients the light they desire and their surroundings suggest—with G.E.'s two new lamps.

For cool, crisp atmosphere:

DE LUXE COOL WHITE

For warm, friendly, intimate surroundings:

DE LUXE WARM WHITE



Complexions flattered

Secret is new "D-R" phosphor

It took years of research to develop the phosphor, "D-R", that made General Electric's new color triumph possible. "D-R" is the first successful "deep red" phosphor ever known.

These two new lamps are one of the greatest advances in fluorescent lighting since General Electric introduced the first fluorescent lamp in 1938. The DE LUXE COOL WHITE and DE LUXE WARM WHITE lamps will both be introduced early in 1950 in the 40-watt size, later in all other popular sizes of G-E fluorescent lamps.



*For business,
DE LUXE COOL*



*For intimacy,
DE LUXE WARM*

GENERAL ELECTRIC BRINGS YOU A WORLD OF COLOR



Four G-E fluorescent lamps—the two above, plus a Standard Cool White and Warm White—now meet practically all fluorescent lighting needs.

New white lamp line makes selection easy

The whole question of which "white fluorescent lamp" to use is now simplified. The two new lamps—plus two "high efficiency" lamps—create a line of four G-E white fluorescent lamps that fills practically all fluorescent lighting needs.

STANDARD COOL WHITE (formerly 4500)—offers highest efficiency with reasonable color rendition. Widely preferred for most working and selling areas.

DE LUXE COOL WHITE—gives excellent color rendition with

good (but not highest) efficiency. Recommended for cool environment where the best appearance of color is essential.

STANDARD WARM WHITE (formerly Warm Tint) provides highest efficiency combined with reasonable color rendition.

DE LUXE WARM WHITE combines excellent color rendition with good (but not highest) efficiency. Recommended for warm environment where the best appearance of color is essential.

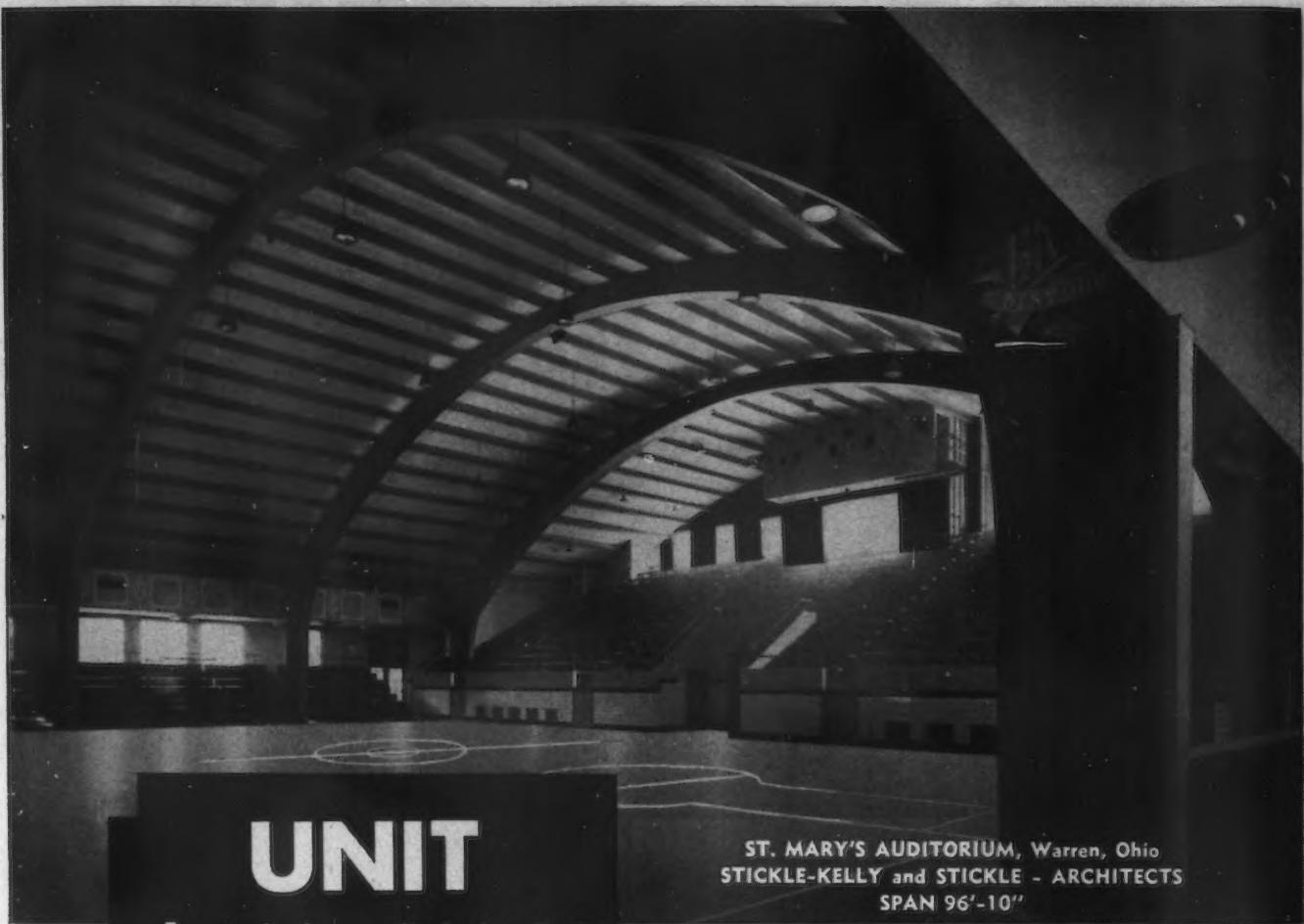
FREE SELECTOR GUIDE



Show which lamp you need to meet your lighting requirements. Write General Electric, Div. 166-AR-2, Nela Park, Cleveland 12, Ohio.

You can put your confidence in—

GENERAL ELECTRIC



UNIT

ALL GLUED
laminated arches

ST. MARY'S AUDITORIUM, Warren, Ohio
STICKLE-KELLY and STICKLE - ARCHITECTS
SPAN 96'-10"

specify with . . .
CONFIDENCE

STRENGTH

"UNIT", all glued, laminated arch frames possess the high rigidity of a two piece, three hinged arch and are, therefore, much more rigid than roof structures whose trusses and supporting columns are separate, artificially connected units.

ECONOMY

Substantial economies are achieved through savings in space and materials since the form of the arch follows the function of the building. Elimination of numerous field connections simplifies erection.

FIRE RESISTANCE

Wood, unlike steel, does not lose strength when exposed to heat. The solid section of a "UNIT", all glued, laminated arch assures maximum fire resistance and does not transmit heat thru the section. The load bearing qualities remain intact after extensive exposure to fire, allowing time to save the structure and contents . . . both material and human. This is why "UNIT" laminated arches EARN low insurance rates!

16 PAGES IN SWEETS

File-Architectural. Look now! Select correct size arches, beams or rafters for your next project from detailed dimension tables and data. "UNIT" means a new standard in modern design and efficiency.



Unit Structures, Inc.

PIONEERS IN DESIGN AND MANUFACTURE OF
ALL GLUED, LAMINATED ROOF STRUCTURES!

FLEXIBILITY

The laminating process (U. S. Patent Numbers 2,177,395 - 2,172,093) used in the construction of "UNIT" all glued, laminated arches, permits shaping to ANY desired form . . . a structure that will not check, shrink or warp . . . a structure offering unlimited decorative treatments.

BEAUTY

The natural beauty of "UNIT" all glued, laminated arches is unsurpassed . . . beauty found only in wood. The decorative treatments are unlimited. Arches can be finished to match any stain sample submitted or any planned color scheme.

ENGINEERING

The pioneering background and the design and production "know-how" of "UNIT'S" technical staff warrants your confidence! Without obligation to you, we are prepared to furnish advice and assistance in the selection and application of all glued arches and beams and prepare preliminary and final design data for special units for individual application.

An original approach to new design and use of "Unit" all glued, laminated arches is pictured in the 97' span pictured above. Arches span the length of the basketball court rather than the conventional width span.

REPRESENTATIVES IN ALL PRINCIPLE CITIES



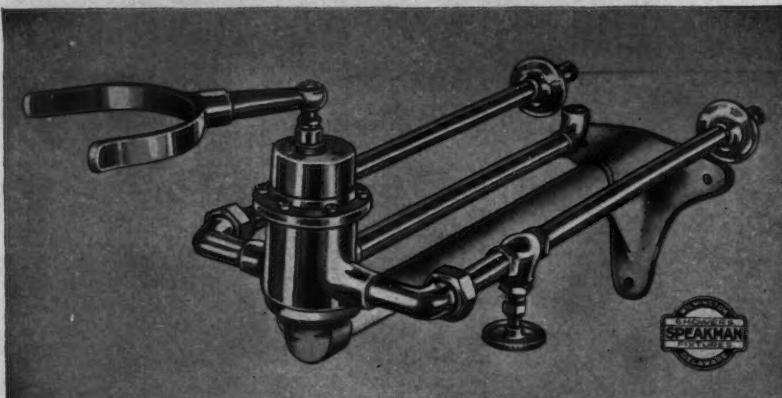
PESHTIGO
WISCONSIN

2 NEW SPEAKMAN

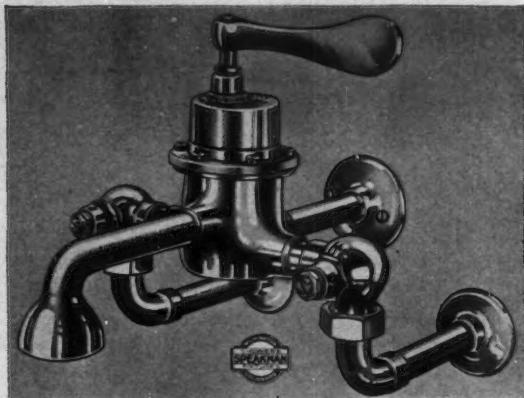
Elbow and Knee Operated

SENTINEL MIXING VALVES

S-6175—Speakman Sentinel Knee-action Mixing Valve. Size $\frac{1}{2}$ ". Center to center of inlets, 8 inches



S-6065—Speakman Sentinel Elbow-action Mixing Valve Size $\frac{1}{2}$ ". Center to center of inlets, 8 inches



Permit washing in water of a predetermined temperature that does not change due to "Water Stealing" or fluctuating water supply line pressures

Ideal for

**Surgeon's Scrub-up
Doctor's Offices
Food Establishments**

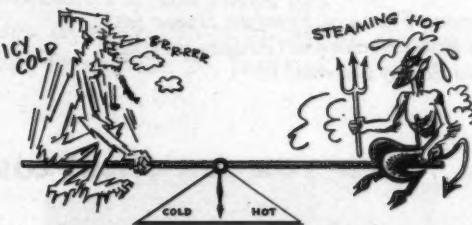
Or any other installation where it is desirable to maintain the discharge temperature with a high degree of sanitation.

Speakman Sentinel (Patented) Mixing Valves guard you against sudden changes of steaming hot or icy cold water caused by fluctuating supply line pressures. These elbow and knee operated fixtures will maintain the discharge temperature set by the user. It's all done with the F-L-O-A-T-I-N-G SENTINEL, a triumph of engineering that holds discharge temperatures steady.

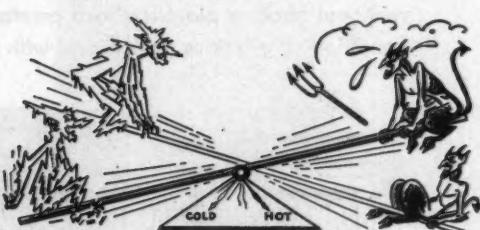
There are no tricky, temperamental springs and thermostats or other gadgets that might break down or are difficult to replace or repair. It works automatically. It works on water pressure alone.

The Floating Sentinel is easily accessible and can be quickly removed, if necessary, for inspection or cleaning without shutting off the water supply.

For further information send for folder S-56



With the SENTINEL BALANCED PRESSURE VALVE, discharge temperatures remain steady!



Without the SENTINEL, unbalanced pressures from "water stealing" result in sudden surges of icy cold or steaming hot water.



In Our Eighty-First Year
SPEAKMAN
SHOWERS AND FIXTURES
SPEAKMAN COMPANY, WILMINGTON, DELAWARE

Now—

You can give your clients

The famous Flame of Freedom House featured in Better Homes and Gardens, designed by David Searcy Barrow.

How you can offset cost of *All-Year* air conditioning

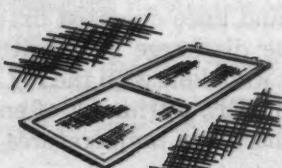
By deciding to use All-Year Air Conditioning in the early planning stage, you can make enough economies to give your client year-round comfort at little or no extra cost. Moreover, the features which you would eliminate—such as a screened-in porch, fireplace, attic fan, conventional heating plant—afford comfort only for a short period of time, while All-Year Air Conditioning provides your clients with the ultimate in comfort all year-round.



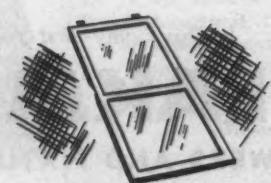
NO FIREPLACE



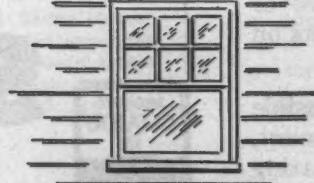
NO PORCH



NO SCREENS



NO STORM SASH



LOWER COST
WINDOW CONSTRUCTION



NO ATTIC FAN

All-Year air conditioning

at little or no extra cost!

TODAY, everyone wants the convenience and comfort provided by Servel All-Year Air Conditioning in their homes. You can provide your clients with this modern unit simply by planning your homes around a Servel Air Conditioner. Recent studies and cost estimates have indicated that you can do it without increasing the total price. The reason for this is that, by planning around a Servel unit, you gain certain structural economies which offset the price of the Air Conditioning.

For instance, a house designed for Servel All-Year Air Conditioning needs no fireplace. It needs no porch. Outside doors and windows can be kept closed and many windows need never be opened at all. That means a big saving on screens and storm sashes. In most parts of the country the total savings would more than offset the cost of the Air Conditioning.

Keep that in mind when your clients ask you about Servel All-Year Air Conditioning. Keep in mind, too, that Servel provides them with year-round

comfort . . . refreshing cooling in summer and instant heat in winter. And changeover is accomplished by a mere flick of a switch.

Keep in mind, also, that the use of Servel All-Year Air Conditioning is not confined just to one type of architecture. It can be easily adapted to any type, style, size, or shape of home your client wants. Remember, by including the Servel unit in the original plans, you can provide it for your client at *little or no extra cost*. For full facts, ask your local Gas Company, or write direct to Servel, Inc., 8002 Morton Ave., Evansville 20, Indiana.



House

*...of
representatives*



All here under one rooftop...the most distinguished representatives from the building field! From the linoleum in the kitchen to the insulation in the walls, the materials that have gone into the house reflect the best in building products. Reflect—also—the taste and standards of the owner-builder

...who specified the materials in his built-to-order house. Because built-to-order houses mean more profitable orders for you, it is important to tell your story to House & Garden's owner-builders...the people of means and taste who have the power to specify your product.

House & Garden

...for the owner-builder market

©1960. THE CORCORAN PUBLICATIONS INC.

These Four Specialists Can Fill Almost Any Opening

No matter what your requirement . . . no matter what your budget . . . chances are a Weldwood Door can meet your needs for standard closures.

THE WELDWOOD FIRE DOOR



Here is the only wood-faced fire door on the market that carries the Underwriters' Laboratories Class B label. Architects everywhere are welcoming the opportunity to combine absolute fire protection with the striking decorative beauty available through the wide variety of hardwood faces that can be had with this modern door.

Standard faces are beautiful birch veneer. Other faces in domestic and imported hardwoods on special order.

The Weldwood Fire Door is durable...dimensionally stable...light in weight...vermin and decay proof.

And the moderate cost indicates that hospitals, schools, institutions, offices and apartment buildings cannot afford to be without the low-cost protection of this modern fire door.

WELDWOOD STANDARD MINERAL CORE DOOR

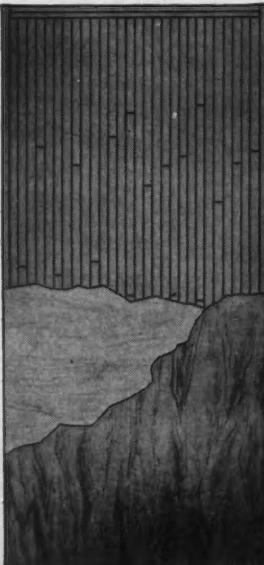


The solid mineral core of this newly developed type of standard door, plus the waterproof phenolic bond gives you a durable, versatile door that can be used either for interior or exterior openings.

When you specify the Weldwood Mineral Core Door you get a combination of advantages hard to beat. Maximum dimensional stability—this door is guaranteed against swelling and sticking in summer...or shrinking and rattling in winter. Increased utility through light weight. Increased durability because of waterproof construction.

And you can get this modern closure in a wide variety of light and louver openings, including circular, rectangular and divided lights, factory-prepared, ready for glazing.

WELDWOOD LUMBER STAVED CORE DOOR

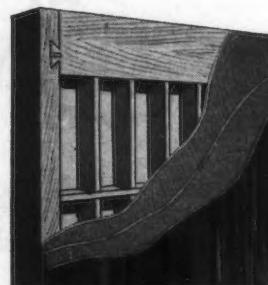


Unusual versatility makes this new addition to the Weldwood line a favorite with architects everywhere. Because of its solid lumber staved core construction, the door can be hung from either side. Hardware is easily installed in any standard or custom position. Lights and louvers may be cut on the job.

Dimensional stability is unusually great because of special core construction and built-up rails and edge banding.

This lumber core door is available in a wide variety of standard sizes and many strikingly beautiful face veneers in domestic or imported hardwoods.

MENGEL HARDWOOD HOLLOW CORE FLUSH DOORS



Meet low cost requirements with this high quality door that combines beauty, durability and economy. Designers of homes, offices and public buildings of all kinds have specified this popular door for years to meet requirements that called for distinctive appearance and dependable service at a price well within even modest budgets.

The rigid, grid-constructed core and dovetailed wedge-locked joints on stiles and rails give the Mengel Door exceptional dimensional stability.

* * *

All United States Plywood warehouses have all types of flush doors in stock. You can obtain delivery in all parts of the country.

Complete specifications and product information on these and other Weldwood Doors are listed in Sweets' Catalog or are available in special literature which will be mailed to you upon request.

UNITED STATES PLYWOOD CORPORATION

55 West 44th Street, New York 18, N.Y.

Distributing units in Albany, Baltimore, Boston, Brooklyn, Buffalo, Chicago, Cincinnati, Cleveland, Detroit, Fresno, Glendale, Hartford, High Point, Indianapolis, New Hyde Park (L.I., N.Y.), Los Angeles, Milwaukee, Newark, New York, Oakland, Philadelphia, Pittsburgh, Portland, Ore., Richmond, Rochester, San Francisco, Seattle, Spokane, St. Paul,

Washington, D.C. Also U.S.-Mengel Plywoods, Inc., distributing units in Atlanta, Birmingham, Dallas, Houston, Jacksonville, Kansas City, Kans., Louisville, Memphis, New Orleans, San Antonio, St. Louis, Tampa. In Canada: United States Plywood of Canada, Limited, Toronto. Send inquiries to nearest point.



By the great bard's beard...

why don't you help us
spend our money?



Gadzooks, Mr. Manufacturer! You can't afford to snub home-planners in the custom-built residential market. They hunger for detailed information about the building materials, equipment and appliances they need and want for their new, quality homes.



A noted research organiza-

tion reports that 97 per cent of the home-planning families it recently interviewed kept their Home Owners' Catalogs at their fingertips throughout the planning and building stages and long after.

No, sir! You can't afford to snub cash-in-hand home-planners. And you can't afford to snub the pre-selling job Home Owners' Catalogs can do for you!

Home Owners' CATALOGS

119 West 40th Street, New York 18, N.Y.

F. W. Dodge Corporation's Consumer Catalog Distribution Service

TRANE

How to stop picture window chill!

With catlike quickness the new Trane "Picture Window" Convector intercepts those infiltrating fingers of cold air that forever seek admittance to the room with the view. Skillfully designed to blend with the artistic beauty of the picture window, this new low heating unit gently but thoroughly blankets even the largest expanse of glass with protective warmth—positively preventing picture window chill.

This newcomer to the Trane line provides the same dependable, economical convector heat as standard size units. It embodies the same efficient extended surface heating coil—the same top quality materials and construction features as all other Trane Convectors.

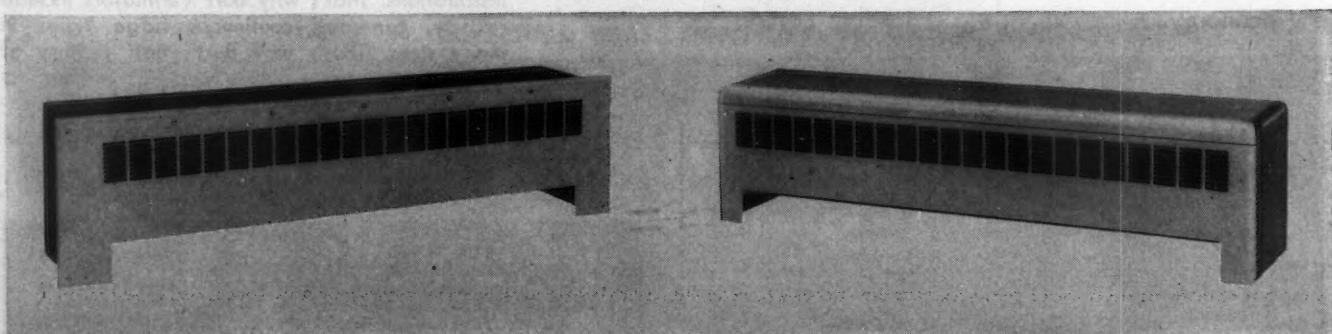
Used as supplementary heating, the picture window convector puts heat in a hurry on the area of greatest heat loss. Rooms are more evenly, quickly, healthfully warmed all over, at low fuel cost.

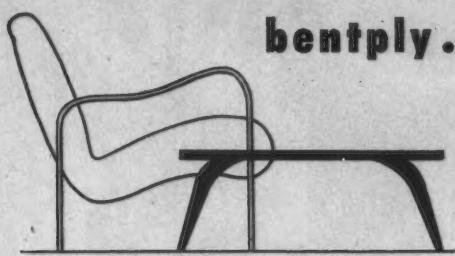
There is a Trane Convecto...r for every picture window that has a space of 12" or more existing between the bottom of the casement and the floor line. Available in three styles—free-standing—semi-recessed—or completely recessed, in depths of 4", 6", 8" or 10", and lengths from 17" to 88" for any steam or hot water system. This new Convecto...r development is but one of a complete line of Trane Convectors. Ask the Trane sales office in your area for complete information.

THE TRANE COMPANY... LA CROSSE, WIS. EASTERN MANUFACTURING DIVISION, SCRANTON, PA.

Manufacturing Engineers of Heating, Ventilating and Air Conditioning Equipment—Unit Heaters, Convecto...r-radiators, Heating and Cooling Coils, Fans, Compressors, Air Conditioners, Unit Ventilators, Special Heat Exchange Equipment, Steam and Hot Water Heating Specialties
... IN CANADA, TRANE COMPANY OF CANADA, LTD., TORONTO.

Left: Model RKL fully recessed unit. Right: Model FKL free-standing convecto...r. Sizes are flexible to fit all standard requirements.





St. Clare's Hospital, Schenectady, N. Y.
Architect: York & Sawyer, New York

bentply... AT ST. CLARE'S HOSPITAL

Functional in design... warm in appearance—Thonet "Bentply" furniture meets the most exacting requirements for style and comfort. Write for illustrations and detailed information on Thonet "Bentply" and "Bentwood" furniture.

THONET INDUSTRIES INC., ONE PARK AVENUE, NEW YORK 16, N. Y.
SALES OFFICES: NEW YORK • CHICAGO • STATESVILLE, N. C.



TUFF-TRED

SAFETY STAIR NOSING

For use on any type stair whether new or old... in office or industrial buildings, in schools or in homes. TUFF-TREDS prove extremely long wearing because they're durably constructed of polished extruded aluminum with non-skid, semi-resilient abrasive filler. Practical architects and contractors consistently specify TUFF-TREDS because of their permanent beauty, safety and economy.

Just fill in and mail coupon below
for full details

GOODLOE E. MOORE, Incorporated

Danville 6, Illinois

Please send complete details on TUFF-TREDS without obligation to:

Name _____

Firm Name _____

Address _____

City & State _____



The Burt Free-Flow Gravity Ventilator. It can be converted into the Free-Flow Fan Ventilator by the addition of fan barrel section between head and base.

BURT'S COMPLETE LINE INCLUDES EQUIPMENT FOR EVERY VENTILATING NEED

No one type of ventilator is efficient for all installations. That's why Burt Ventilators include gravity, fan and continuous ridge types in many sizes. That's why Burt's half century of experience and the active help you can expect from Burt engineers are important considerations in selecting your ventilating equipment.

THE BURT MFG. CO.

ROOF VENTILATORS • OIL FILTERS
EXHAUST HEADS

48 E. South Street, Akron 11, Ohio

SEND
FOR CATALOGS

Burt Engineers
are glad to
help on plans

HOW TO CREATE A COORDINATED CLASSROOM

**meeting or bettering all recommendations
of American Standard Practice**



How a typical Coordinated Classroom was created in a typical school, using standard available lighting equipment and other materials, and achieving brightness ratios and reflectances either equaling or bettering those recommended by the American Standard Practice for School Lighting, is told in detail in:

THE F. W. WAKEFIELD BRASS COMPANY, VERMILION, OHIO

1. An Engineering Survey by an Independent Consulting Illuminating Engineer. (A copy is yours for the asking.)
 2. Write also for "The Coordinated Classroom" by Darell Boyd Harmon, a 48-page illustrated brochure.

ANOTHER WAKEFIELD STAR INSTALLATION
Lighting installation consists of four continuous rows of two-lamp, 40W Wakefield Stars with luminous indirect plastic reflectors using 3500° white fluorescent lamps.

Wakefield Over-ALL Lighting



New Life

...the library furniture with
★ SIMPLICITY OF LINE
★ FLEXIBILITY OF ARRANGEMENT

It's NEW LIFE for your library . . . new life in the many handsome Sjöström-built pieces with the modern, functional design. Note the extreme simplicity of line and the pleasing rhythm of the natural grain finish. NEW LIFE has no dust-catching, detailed decoration. Sturdy yet graceful, it combines good taste with efficiency—serviceability with charm.

Sjöström NEW LIFE Furniture is sectionalized. Its design allows wide flexibility of arrangement —arrangement as you desire—to meet your space requirements. The charging desk pictured above, the commanding unit in a complete installation at ESCUELA MILITAR, CARACAS, VENEZUELA, is typical of the beauty and efficiency of all Sjöström Library pieces.

Bulletin L-10 will help you plan your desk—your complete library. Send for it.

Sjöström NEW LIFE Tables have beautifully surfaced, solid hardwood tops. Tapered legs are set in from the table edge to avoid scuffing and unnecessary wear.



JOHN E. SJÖSTRÖM COMPANY
1717 N. Tenth Street, Philadelphia 22, Penna.



for appearance
performance
value

(Illustrated—LOWELL False Ceiling Model No. AL12-PC)

LOWELL SPEAKER BAFFLES provide proper Control and Direction of Sound

Effectively combining attractive form and efficient construction produces the apparent value in LOWELL Speaker Baffles. They have been used to advantage by outstanding architects in a wide variety of installations—hotels, auditoriums, schools, hospitals, offices, factories, stores, restaurants, cocktail lounges, terminals for railroads, air lines and bus lines and numerous others.

• When you want harmonious interior effects along with dependable performance, specify LOWELL Speaker Baffles. Many models for many applications. Your inquiry will be handled promptly.

LOWELL
METAL PRODUCTS CORP.
1531 BRANCH STREET • ST. LOUIS 7, MO.
"There's More To Sound Than What You Hear"



A clear liquid which penetrates deeply into masonry surfaces.

The hydrocarbon solvent evaporates, leaving the pores filled with a balanced formula of seven different waxes and resins.

See our catalogs in SWEET'S Architectural Files $\frac{9}{9}$ and Engineering Files $\frac{4}{3}$ under Waterproofing and Dampproofing.

WRITE OUR ENGINEERING DEPARTMENT for office test kit, technical data, or regarding any special problem

J. Wilbur Haynes, Engineer

HAYNES PRODUCTS CO.
4007 FARNAM STREET • OMAHA 3, NEBRASKA





Builder: Fred C. Trump, New York

Architect: Seelig & Finkelstein, Brooklyn

Steel Fabricator and Erector: Simon Holland & Son, Inc., Brooklyn

New Apartment Project at Entrance to New York Harbor

Commanding a sweeping view of both the Atlantic Ocean and The Narrows, leading to New York's Upper Bay, this new apartment project at Bensonhurst, Brooklyn, has facilities for some 1360 families. Known as the Shore-Haven Apartments, the project consists of thirty-one 6-story buildings. They are elevator-equipped, have oil heat, and contain apartment units of from 2 to 4½ rooms.

Standing beneath the red-brick exteriors of these attractive apartment buildings are steel frameworks of Bethlehem Structural Shapes.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

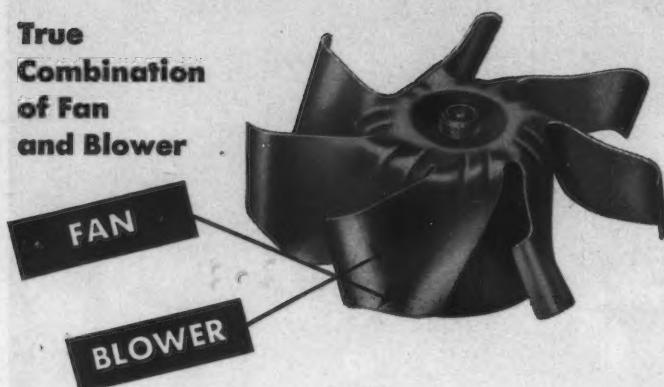
On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation
Export Distributor: Bethlehem Steel Export Corporation

Bethlehem
**STRUCTURAL
SHAPES**



only **Blo-Fan***
HAS THIS BLADE

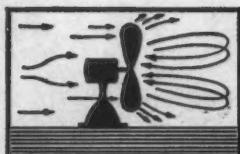
True
Combination
of Fan
and Blower



FAN



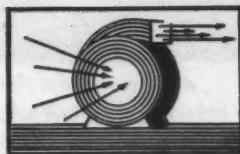
A propeller fan blade is designed to move large volumes of air ... But, 75% of the air moved is thrown from the faster-moving blade tips. Blo-Fan blades supercharge the weaker center area by placing the fan element closer to the center beneath the blower section of the blade where air literally is scooped up and fed to the blower vanes.



BLOWER



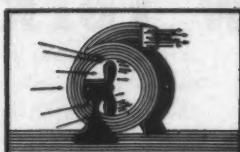
The squirrel cage type blower delivers air at great velocity, but the air tends to thin out in the vortex or air inlet, thus limiting volume. In the Blo-Fan the blower vanes expel the air that is fed to them by the fan element with much greater power than is possible by a propeller-type ventilator. A blower has power, but lacks volume.



BLO-FAN



Only Blo-Fan combines the best elements of both fan and blower. The propeller element feeds air to the blower element, thus minimizing loss of power or volume. That's why Blo-Fan delivers more air at moderate speeds than either a blower or propeller-type ventilator. Blo-Fan combines the power of a blower and volume of a fan.



IN VENTILATING FANS, BLADE DESIGN MEANS EVERYTHING!

* Trade Mark Reg.

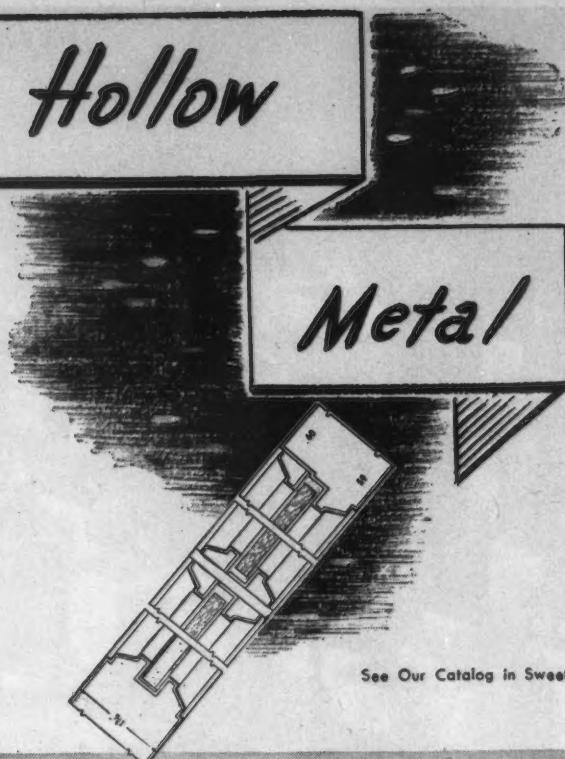
CEILING VENTILATION AT THE POINT OF AIR POLLUTION
in the kitchen, bath, game room and laundry

Manufacturers of
PRY-LITES
...the modern re-cessed lighting fixtures with snap-on fronts.

Factories: Pomona, California; Newark, N.J.
Warehouses: Los Angeles, San Francisco, Chicago
Stocked by more than 500 wholesalers in more than 350 cities

Pryne & Co., Inc. Box R2
Pomona, California

Hollow



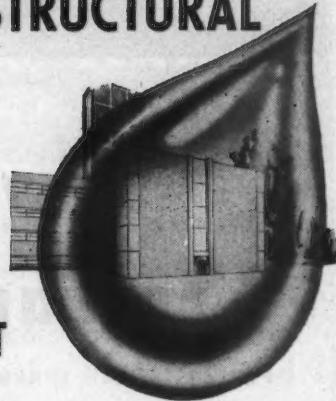
See Our Catalog in Sweet's

JAMESTOWN METAL CORPORATION

104 BLACKSTONE AVENUE JAMESTOWN, N.Y.

SAFEGUARD STRUCTURAL BEAUTY . . .

specify
CRYSTAL
silicone
WATER REPELLENT



Amazing new exterior water-repellent actually penetrates to prevent moisture and water damage . . . gives you two important benefits:

1. ORIGINAL BEAUTY RETAINED—Invisible after application, Crystal does not change the color or surface texture . . . makes surfaces stainproof and prevents efflorescence.
2. MATERIALS LAST LONGER—Crystal repels water throughout entire depth of penetration . . . provides lasting protection to all man-made masonry and most natural stones.

ONE COAT OF CRYSTAL is all that's needed, applied at any temperature . . . saves money . . . saves time on the job!

Send for your free copy of "Exterior Masonry Waterproofing Manual"



CHEMICAL COMPANY

4952 Fyler Ave., St. Louis 9, Mo.



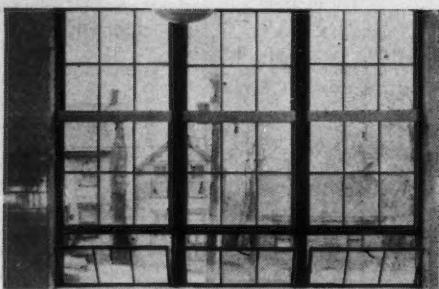
TRUSCON

**Series 138 DOUBLE-HUNG
WINDOWS
and
Intermediate Louver
Windows**

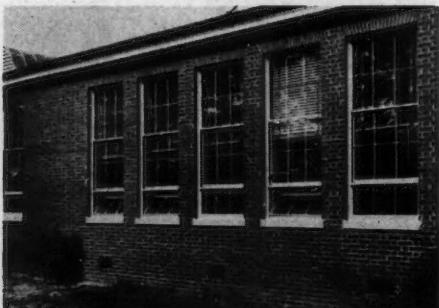
extremely efficient...



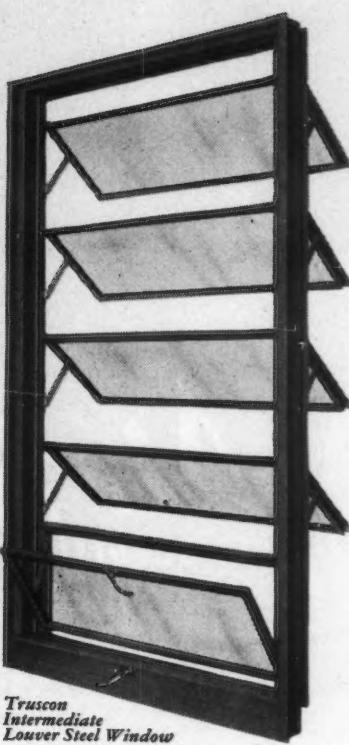
Truscon Series 138
Double-Hung Steel Window



The generous use of nature's free sunlight and fresh air is possible with these durable Truscon Steel Windows.



Truscon Series 138 Double-Hung Steel Windows in Southern Pines School, Southern Pines, N.C. Laxton Construction Company, Charlotte, N.C., Contractors. William Henry Deetrick, Inc., Architects, Raleigh, N.C.



Truscon
Intermediate
Louver Steel Window

...extremely attractive in price

The building world needed windows so strong, so efficient, so moderately priced that they would be adaptable to a wide range of construction requirements. Truscon applied all its exceptional facilities to the problem—great experience in windows, expert engineering talent, tremendous manufacturing facilities. Result: the Truscon Series 138 Double-Hung Steel Window and the Truscon Intermediate Louver Window—now widely used in residential, school, institutional and commercial structures! Due to the wide range of standard types and sizes offered, and the availability of integrally built sill ventilators, the designer can create a distinctive window arrangement exactly to meet any particular requirements. Modular standards employed throughout. Write for illustrated literature giving complete details.



FREE Book on Truscon Steel Windows. Write for it. The Truscon Steel Company Manufactures a Complete Line of Residential Double Hung Windows . . . Residential Casements . . . Security and Basement Windows . . . Screens and Storm Sash . . . Metal Lath Products . . . Industrial Steel Doors . . . Coal Chute Doors . . . Steel Lintels . . . Concrete Bars . . . Welded Steel Fabric.

TRUSCON STEEL COMPANY

Subsidiary of Republic Steel Corporation

YOUNGSTOWN 1, OHIO

Warehouses and sales offices in principal cities

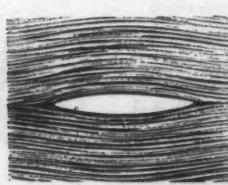
The Eighth of a Series in the interest of more efficient use of steel...a vital American resource.

THE Amazing New Grille THAT MAKES AIR CONDITIONING BETTER!

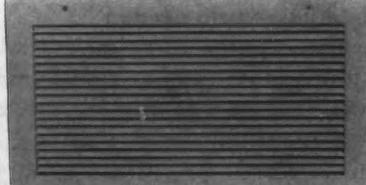
Specified for John Hancock
Arch.—Cram & Ferguson
Boston, Mass.
Gen. Cont.—Turner Const. Co.,
Boston, Mass.
H. & V. Engrs.—Buerkel & Co. Inc.,
Boston, Mass.
Sh. Met. Cont.—Stanley E. Priggen
Co., Boston, Mass.

Airfoil AIR CONDITIONING OUTLETS

The exclusive AIRFOIL LOUVER is the FIRST REALLY NEW IDEA in air conditioning grille, register and outlet design. Surfaces of this louver are smooth as glass. Contours are exactly streamlined. All louvers are solid section and made from extruded materials. AIRFOIL LOUVERS are individually adjustable. There are no cracks, no crevices which will cause noise. Exhaustive wind tunnel tests prove conclusively that AIRFOIL LOUVERS outperform all others. They diffuse air with minimum turbulence, minimum noise, and a near-perfect, draft-free distribution. Special design concealed supports give them great structural strength.



Illustrated above—Streamlined AIRFOIL LOUVER knives air in wind tunnel tests. Note how turbulence has been almost completely eliminated.



Illustrated above—Airfoil R-L-21 Return Air Grille—features blades on $\frac{1}{8}$ " centers. The deep fins with easy curved deflections are standardized at 0 degrees and 42 degrees.

TITUS MFG. CORP., Waterloo, Iowa

Gentlemen: Please send me FREE colored catalog on the NEW AIR-FOIL GRILLES, REGISTERS & OUTLETS.

NAME _____

FIRM NAME _____

ADDRESS _____

CITY _____ STATE _____



USE PROPER STEEL STRESSES AND SPECIFY LACLEDE MULTI-RIB REINFORCING BARS

Concrete reinforcing steel design stresses of 20000 psi (f_y) are based upon old type plain bars with 40000 psi maximum yield strength... A safety factor of 2 at the elastic limit.

Laclede Multi-Rib Reinforcing Bars designed for high anchorage* are produced in steel grades with more than 60000 psi yield strength. Retaining the elastic limit safety factor of 2, a design stress with Multi-Rib high strength reinforcing of 30000 psi is justified.

Sound engineering design dictates efficient use of materials... so why waste every third bar?

*IN EXCESS OF ASTM A305 REQUIREMENTS AND THE LATEST A.C.I. RECOMMENDATIONS.



LACLEDE STEEL COMPANY

St. Louis, Mo.

Specified by Leading Architects

SAFE—SHATTERPROOF TUB ENCLOSURES

- Fiberglas laminate
- Lightweight and translucent
- Lower cost and longer life at a fraction of the cost of glass
- Choice of six colors and clear
- Easy to install



AMBASSADOR HOTEL COTTAGES
SHOWER & TUB ENCLOSURES
Paul R. Williams, A.I.A.

Ripple-lite Shatterproof Safety for Beautiful Bathrooms

Safe, shatterproof and colorful, the RIPPLE-LITE complete line of all types and sizes of shower doors and tub enclosures combines the highest quality polished aluminum frame and ALSYNITE Fiberglas laminate panels. The inherent resistance of Fiberglas to heat and mild chemicals makes RIPPLE-LITE a perfect replacement for the heavier, and more expensive, breakable and unsafe glass shower doors and tub enclosures. Available for replacement or new installation.

Permafix Stainless Steel Shower Receptors

One piece Stainless Steel Permafix Shower Receptors offer safe, skidproof, sanitary, easy-to-clean, easy-to-install—more economical, permanent, sound-proofed shower receptors.



W. D. O'MORROW & CO.

4509 Firestone Boulevard
South Gate, California

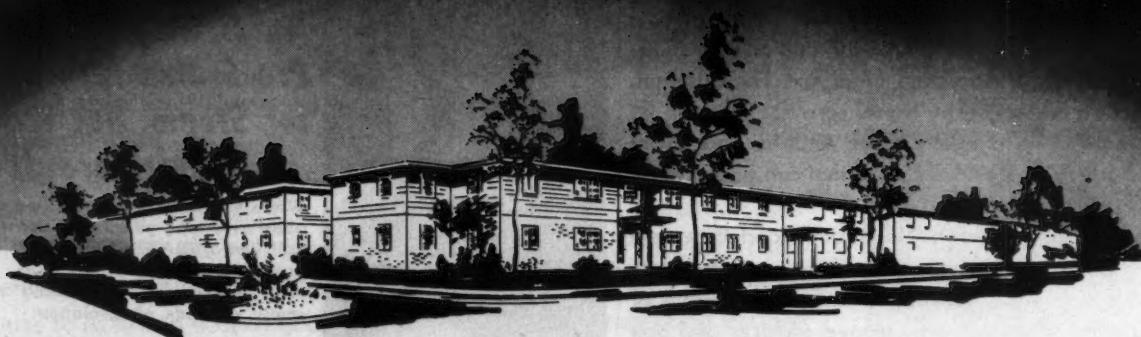
Formerly THE PERMAFIX CO.

© W. D. O'Morrow and Company

CYLINDRICAL LOCKS

Sierra design

—latch set No. 200



Accepted by architects and builders

WESLOCK'S smart styles compliment any type of architecture. They are the only true cylindrical locks in the low cost field and their many quality features such as five-pin tumbler construction, push-button locking, split spindle operation, dead latches, many types of finish and a complete guarantee are rapidly making WESLOCKS the No. 1 choice of architects and builders everywhere. Send for a catalog showing the complete WESLOCK line for every door in the house.

Another WESLOCK installation,
Country Club Apartments,
Houston, Texas.

Architect: Thomas C. Rhodes.

Contractor: Rhodes-Sereau
Construction Co.

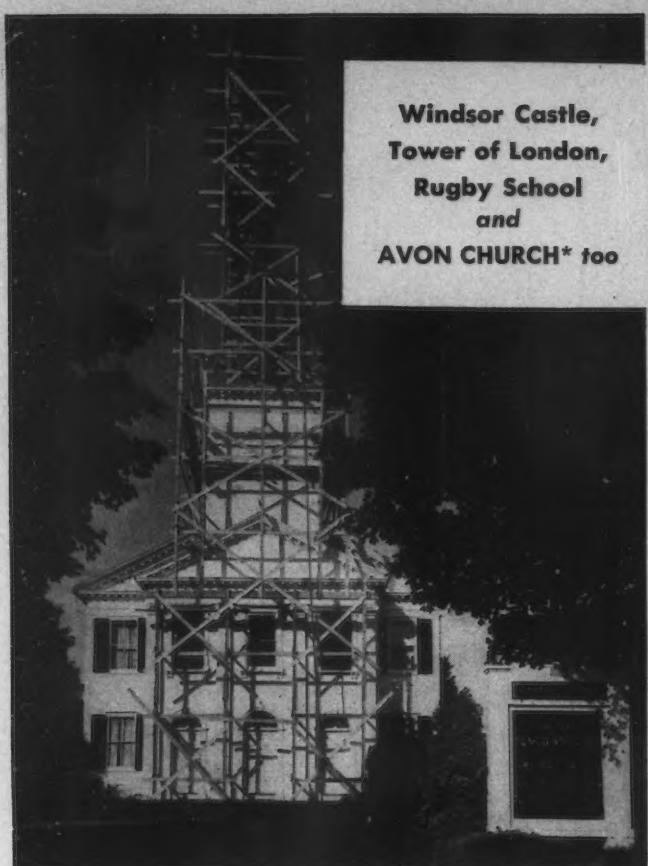
Hardware Distributor: Southwest
Hardware & Equipment.

Hardware Dealer: Shepherd Lumber
& Hardware

WESTWOOD

MANUFACTURING CO.
1420 South Evergreen Avenue
Los Angeles 23, California





Windsor Castle,
Tower of London,
Rugby School
and
AVON CHURCH* too

*Avon Congregational Church, Avon, Conn.

CUPRINOL®

STOPS ROT AND TERMITES
INCREASES DIMENSIONAL STABILITY

In their restorations they have had in common this important specification—ROT-PROOFING WITH CUPRINOL.

Write "rot-proofing with Cuprinol" into all your specifications for wood construction or repair. For Cuprinol, easily applied on-the-job by brush, spray or dip, can increase the life of wood up to 3 times. And, for doors, windows and other fitted millwork, Cuprinol can also prevent warping, swelling and shrinking.

Specify Cuprinol for all foundation and basement lumber; for any wood subject to moisture or contact with the soil; for any wood in contact with metal masonry or concrete; and for sawed ends, planed surfaces and bolt holes in treated lumber.

CUPRINOL prevents Rot, Termites, Warping, Shrinking & Swelling in:		
Sills	Posts	Doors
Joists	Sub flooring	Door frames
Beams	Sheathing	Porches
Sleepers	Siding	Fences
Studs	Windows	Gates
Girders	Window frames	Arbors

See Sweet's Architectural File 5d/3 or write for information on types of Cuprinol for specific uses.

CUPRINOL Division, Darworth Incorporated
3 Maple Street **Simsbury, Conn.**

PLAN YOUR KITCHENS YOUR WAY WITH VERSATILE AKRON ELECTRIC EQUIPMENT



436 RANGE



621-02 OVEN



621 RANGE

For years architectural thinking and planning of kitchens for large estates and institutions has been limited by the availability of only standard size ranges and ovens.

Now, for the first time, the Akron line offers architects a wide flexibility in kitchen planning. Akron Engineered Electric Ranges and Ovens—production models all—can be easily adapted to fit the architect's plan for "built-ins", extra service features and exterior surface finishes to harmonize with the planned surroundings.

Akron ranges and ovens are the finest the market affords and are fully equipped with automatic controls for convenient, trouble free and economical electric cooking in the large residence or institution.

Write today for full details about Akron's custom service for architects. There's a wealth of ideas for you in the planning of kitchens for fine homes and institutions.

AKRON

ASSOCIATED PRODUCTS, INC.

2nd National Bank Bldg. • AKRON, OHIO

20 S. Ontario St. • TOLEDO, OHIO

Dependable Positive Protection



Pre-Sealed Insulation for Steam, Hot Water or Refrigerants

When you must have unfailing operation over long years of service, you will find DURANT INSULATED PIPE has outstanding advantages that merit preference over many more costly methods of insulation.

D.I.P. solves the problems of electrolysis, corrosion and waterproofing, either underground or exposed—field work is simple and cuts installation costs—efficiency does not lessen with age—no tile or masonry protection are required.

Our representatives throughout the country are at your service. DURANT catalog and engineering data will be supplied on request.



DURANT INSULATED PIPE COMPANY

1015 Runnymede St. East Palo Alto, California



Front view showing main entrance of the \$5,250,000 Hermann Hospital.
Franzheim, Hedrik and Lindsley, architects.



Tyrell vitreous china flushing rim service sink, 20 x 20". Height 20".
(K-5160-A).

KOHLER *Plumbing Fixtures* in Houston's new HERMANN HOSPITAL

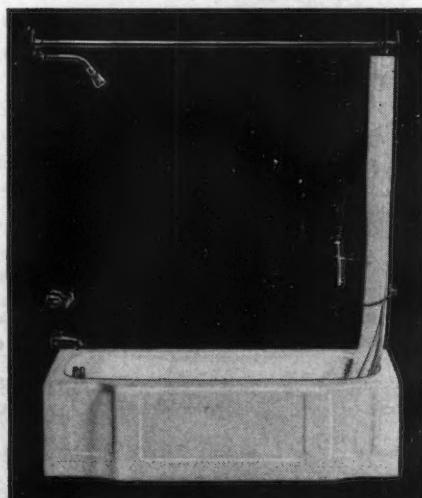
Equipped with the finest modern facilities for combatting sickness and suffering, the new Hermann Hospital building at Houston, Texas, is an impressive unit in the projected one-hundred-million-dollar Texas Medical Center. As in many other leading hospitals, clinics and sanitaria throughout the nation, Kohler hospital plumbing fixtures and fittings are used.

Kohler fixtures are safe, sanitary and durable. The surfaces are glass-hard, non-absorbent, easy-to-clean. The smooth, reliable functioning of Kohler chromium-plated brass fittings is the result of competent engineering backed by long experience. Removable units contribute to ease and economy of maintenance. Both fixtures and fittings conform to the plumbing codes of all states, and their designs embody recommendations by leading surgeons.

When preparing hospital specifications, send for our complete Hospital Catalog. You'll find it convenient for reference, with descriptions and illustrations of the entire Kohler hospital line. Kohler Co., Dept. 4-P, Kohler, Wisconsin. Established 1873.



Example of Kohler plumbing installation in Hermann Hospital. Shown are the Rockwell vitreous china siphon jet closet (K-3800-ET), and the Greenwich lavatory (K-1955-C).



Cosmopolitan recess enameled iron built-in bath, with shower and bath fitting, diverter spout, shower head and pop-up drain. (K-525-A).

KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS • AIR-COOLED ENGINES

RUSCO

Prime Window

(VERTICAL SLIDE)

THE FIRST practical, completely assembled, double-glazed, metal window unit at "project housing" price . . .

Unit includes: glass, screen, weather stripping, wood or metal surround, insulating sash* with built-in controlled ventilation.

This first really practical and complete window unit gives you and the home buyer all the features each of you look for. You get the protection of a reliable manufacturer and supplier—cost reducing ease of installation—desirable strength—sales-making eye appeal—all for no higher price than you now pay. The home buyer enjoys a lifetime of trouble-free, smooth operation—year 'round, all-weather comfort, convenience and protection.



ONLY RUSCO OFFERS THESE DESIGN
AND CONSTRUCTION FEATURES . . .

All working parts of tubular, hot-dipped galvanized Armco Ingot Iron Zincgrip . . . Bonderized and finished with baked-on outer door painting • Modern, Lumite plastic screen cloth • Waterproof felt weather stripping throughout • Automatic prowler-proof locking in all positions • Available without self-contained insulating sash, if desired • All wood installation members are toxic-treated.



All screen and
glass panels slip out
for easy cleaning.

RUSCO 14 Years of Experience...
in manufacturing and installing over 5,000,000 Rusco Combination Windows . . . is your assurance of the engineering and quality of Rusco Prime Windows.

SEND COUPON OR WRITE FOR SPECIFICATIONS

©TFCRC

The F. C. Russell Co.

DEPARTMENT 7-AR20 • CLEVELAND 1, OHIO



Gentlemen: Please send me catalog of informative data and specifications on Rusco Prime Windows Rusco Combination Windows

Name _____ Title _____

Company _____

Address _____

City _____ Zone _____ State _____

OPENINGS FOR DISTRIBUTORS ARE AVAILABLE IN SELECTED TERRITORIES



Adds to the safety of
Suburban residences
..Churches.. Schools
..Power plant stacks
..Farm buildings

D'S

WEST DODD

LIGHTNING CONDUCTOR CORP.
Goshen, Indiana



Throughout the
AIR CONDITIONING
Industry—

AEROFIN FIN-TYPE
HEAT-TRANSFER UNITS
do the job Better,
Faster, Cheaper

AEROFIN CORPORATION
410 South Geddes St., Syracuse 1, N. Y.



Eyes have it Easy AT YOUNG & RUBICAM

YES SIR! Eyes *do* have it easy in this light office of one of America's top advertising organizations. And that's important in any business where fast decisions, fast actions are required. Ample, evenly distributed light eliminates eyestrain—unleashes extra energy to speed work and lend sparkle to creative thinking.

Whenever you have a lighting prob-

lem come first to Litecontrol. You'll find Litecontrol fixtures unusually efficient—Litecontrol engineers expert in planning outstanding lighting installations. And they'll be glad to help you with suggestions or complete layouts.

YOUNG & RUBICAM, INC. 285 Madison Ave., N.Y.C.

Lighting Equipment: Litecontrol No. 404—pendant mounted fixture
Spacing: 10 foot centers
Lamps per fixture: 4-40 watt
Footcandles: 35 in service (average)

WRITE TODAY! This new catalog is yours for the asking

Contains: Pictorial Index for easy, quick reference. Complete descriptions and specifications on all Litecontrol fixtures, including utilization factors, formulae and all data necessary to figure an installation from start to finish.



LITECONTROL CORPORATION

36 Pleasant Street, Watertown 72, Mass.

Please send me a copy of your new booklet.

NAME _____ TITLE _____

COMPANY _____

STREET _____

CITY _____

LITECONTROL *Fixtures*

KEEP UPKEEP DOWN

DESIGNERS, ENGINEERS AND MANUFACTURERS OF FLUORESCENT LIGHTING EQUIPMENT DISTRIBUTED ONLY THROUGH ACCREDITED WHOLESALERS

Save Space!

Gymnasium
To Lunchroom
in 8 minutes



from COAST to COAST . . .

IN-WALL TABLES and BENCHES
CUT SCHOOL BUILDING COSTS

Multiple use of space means economy. Hundreds of schools in cities from coast to coast now use and testify to the practical advantages of In-Wall installations—seat more students in less space, maintain better discipline, eliminate storage areas.

Sturdy, welded, long-life metal construction, sanitary composition surfaces, oil-less bearing rubber casters.

Consult Sweet's Catalog or write direct for complete details and name of nearest representative.

SCHIEBER MFG. CO.
12728 Burt Road
DETROIT 23, MICHIGAN

Economically convert existing or remodeled areas into lunchroom space with against-the-wall model.

FOLDING TABLES & BENCHES

In-wall

234

Recognized Everywhere!



IT'S HAWS FOR HIGHEST QUALITY

- Best Materials
- Finest Workmanship
- Trouble-free Valves and Fittings
- Complete Sanitation

Write today for '49 HAWS Catalog.
Specify HAWS—and be sure!

Haws SANITARY DRINKING FOUNTAINS
ELECTRIC WATER COOLERS

HAWS DRINKING FAUCET CO.

1441 FOURTH STREET Since 1909 BERKELEY 10, CALIFORNIA
Agents and Sales Representatives in All Principal Cities

for better volume—
Sell **INSULITE***
INSULATING WOOL

MADE OF
FIBERGLAS
T. M. REG. U. S. PAT. OFF.
MANUFACTURED BY
OWENS-CORNING FIBERGLAS CORPORATION



ROLL
BLANKET



POURING WOOL



BATT BLANKET



UTILITY BATT

A permanent highly efficient glass fiber flexible insulation—competitively priced! Cannot burn, rot or decay. Quick, easy, economical application. With Insulite Insulating Wool, sell Bildrite Sheathing and Lok-Joint Lath for quality wall construction and greater profits.



INSULITE
INSULATING WOOL
FIBERGLAS INSULATION
MANUFACTURED BY
MANDO PAPER COMPANY
MINNEAPOLIS 2, MINNESOTA



Two great names join forces!

EFFECTIVE January 6, 1950, American Air Filter Company, Inc., Louisville, Kentucky, and The Herman Nelson Corporation, Moline, Ill., merged their interests, with the former company remaining as the surviving corporation.

Each organization will continue to oper-

ate from its respective headquarters, with present management and field representation.

In the future, industry may expect even still finer products and services from these two recognized leaders in the field of heating, ventilating, air filtering and dust control equipment.

American Air Filter Company, Inc.

LOUISVILLE 8, KENTUCKY • MOLINE, ILLINOIS

Modernfold doors save space ...and do it beautifully!



In these days when high costs dictate smaller houses and smaller rooms, space-saving devices are especially welcome to architects. And when they enhance the beauty of the house—well, it's just what you ordered. Modernfold accordion-type doors save space which is wasted with swinging doors. Modernfold Doors save up to six square feet per opening—make rooms that much larger.

With larger Modernfold Doors, rooms can be convertible. Open, they make one larger room; closed, two small private rooms. Do not confuse Modernfold Doors with curtains. They have sturdy metal frames covered by eye-appealing, plastic-covered fabrics. These come in a variety of popular colors that blend perfectly with any general color scheme.

Specify these folding doors for both residential and commercial clients. They solve closure or partition problems—both from a decorative and a practical viewpoint. Remember, they're fabric-covered for beauty—metal-framed for rigidity and strength. *Mail coupon for full details.*

Modernfold Doors are priced from \$26.00 (F.O.B. New Castle) and up.

Look in your telephone book under "doors" for the name of our installing distributor.

NEW CASTLE PRODUCTS
New Castle, Indiana
In Canada: Raymond Mfg. Co., Ltd.,
Montreal, Que.

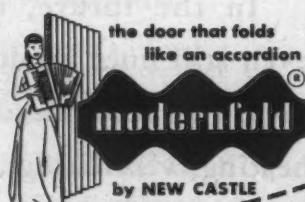
New Castle Products
P. O. Box 810, New Castle, Ind.

Gentlemen:
Please send me your Architect's Catalog, giving full details on
Modernfold Doors.

Name.....

Address.....

City..... State.....



More and more
architects
are making
SCULPTURE
ARCHITECTURALLY
IMPORTANT by designing
in **ENDURO** **ARCHITECTURAL**
TERRA COTTA

*Write for facts. Construction detail,
data, color samples, estimates, advice
on preliminary sketches, will be fur-
nished without charge.*

FEDERAL SEABOARD TERRA COTTA CORP.

10 EAST 40th STREET, NEW YORK 16, N.Y.
PLANTS AT PERTH AMBOY AND SOUTH AMBOY, N.J.



Wall Cleaners
Fungicides
Hand Soaps
Vacuum Cleaners
Moth Exterminators
Disinfectants
Toilet Tissue
Window Cleaners
Soap Powder
Floor Wax, all kinds
Detergents
Pails
Floor Treatments
Paper Napkins
Furniture Polish
Soap Flakes
Exterminators
Mops, all kinds
Stain Removers
Carpet Sweepers
Floor Scrub Machines
Toilet Bowl Cleaners
Sanitizing Agents, Etc.
—Everything for better
cleaning.

The specialized knowledge and experience of the janitor supply house displaying the National Sanitary Supply Association Emblem will prove helpful to you in the proper selection and use of the latest and most efficient equipment and supplies for speeding up your cleaning, maintenance and sanitation program. Proper supplies, equipment and methods definitely reduce cleaning costs!

BUY WITH CONFIDENCE from the Janitor Supply House
Displaying the N.S.S.A. Emblem
NATIONAL SANITARY SUPPLY ASSOCIATION
(INCORPORATED NOT-FOR-PROFIT)
National Headquarters: 139 North Clark Street, Chicago 2, Ill.
Leo J. Kelly, Executive Vice President

*WHERE?
ANYWHERE**

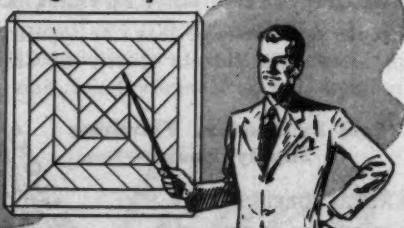
WITH

AGITAIR®



Correct air distribution is achieved
by Agitair Type R in new Macy's Kansas City.
Architect: Kivett & Meyers Consulting Eng: W. C. Cassell
Sheet Metal Con: Gieske Sheet Metal Co.

Here's the Secret of Greater
Diffusing Ability:



Patented built-in vanes deflect the air in numer-
ous divergent streams resulting in turbulence at
the point of contact with the aspirated air.
Result: Rapid mixing, diffusion and temperature
equalization.

* • Center of Ceiling • Off-Center
• Corner • Sidewall • Baseboard

No Wonder more and more specifications call for Agitair Type R! It's tailor-made in design to suit conditions of each application. It assures 100% air distribution in any shape area, from any location — with no noise, no drafts, no blank corners, no hot spots, no cold spots. That's because Patented Vane Construction assures rapid diffusion. That's because Type R, RTC Agitairs are assembled into numerous patterns which divide the air and distribute it in one, two, three, or four directions in proportion to the area served. Get the facts today!

Write for
Complete Data

AIR DEVICES, INC.

17 EAST 42nd ST. • NEW YORK 17, N.Y.
AIR DIFFUSERS • AIR FILTERS • ROOF EXHAUSTERS

DRY WALL CONSTRUCTION

Greatest Advance in 300 years of Building Construction



Repeated surveys record the rapid growth in demand — by architects, builders and home owners — for the common sense, up-to-date method of building . . . dry wall construction.

For the past 32 years Homasote has been steadily replacing plaster and has now been used in millions of dollars of private homes. Constantly pioneering in the development of dry wall construction, Homasote Company has invested more than \$500,000 in research since 1936.

Dry wall construction — with Homasote Big Sheets — offers many major advantages . . . The average wall is covered with a single sheet; batten strips and unsightly wall joints are eliminated. In a single material you provide lasting insulation value and great structural strength.

Dry wall construction — with Homasote Big Sheets — means walls that are permanently crackproof, ideal for paper or paint, lending themselves to modern decorating effects, modern mouldings and trim.

Use the coupon below to secure performance data and illustrated literature on Homasote and allied products.



... oldest and strongest insulating and building board on the market

SEND FOR ILLUSTRATED LITERATURE

HOMASOTE COMPANY • DEPT. 22, Trenton 3, New Jersey

Send me literature as checked:

- | | | | |
|---|--------------------------|--|--------------------------|
| Standard Homasote
(Big Sheets) | <input type="checkbox"/> | Sote Asbestos Board | <input type="checkbox"/> |
| Striated Homasote
(Tiles and Panels) | <input type="checkbox"/> | The Nova Roller Door | <input type="checkbox"/> |
| Wood-textured Homasote
(Panels) | <input type="checkbox"/> | The Nova-Shingle and
the Nova-Speed
Shingling Clip | <input type="checkbox"/> |

Name _____
(Please print in pencil)

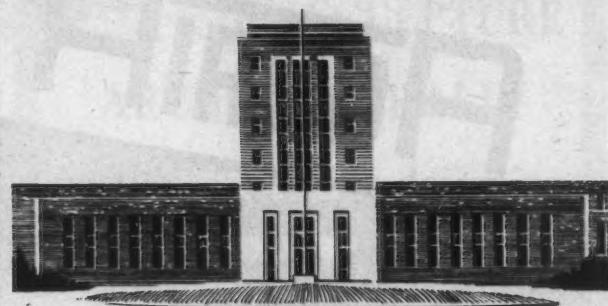
Address _____

City & Zone _____ State _____

EVERY hospital should have Cutler Mail Chute Equipment.

It not only saves time for the staff and personnel, but its convenience is also much appreciated by patients.

Leading Architects specify Cutler Mail Chutes for Hospital Buildings, Nurses' Homes and Interns' Dormitories.



NAVAL HOSPITAL AT HOUSTON • EQUIPPED WITH THREE MAIL CUTLER CHUTES
Architects—Messrs. Finn, Cummings & Taylor

ESTABLISHED 1883

Cutler Mail Chute Co.

ROCHESTER 7, N.Y.

In Hospitals

For Sanitary and Germ Proof
Bath Tub Edges — Specify Lucke

Leak-Proof Bath-Tub Hangers

No Leaks • No Cracks • No Repair Expenses



The Modern Way to Prevent Leaks

There is no excuse for cracks or leaks or repair expense in good building. Leading architects specify LUCKE to overcome this problem. Lucke Hangers build tubs into wall.



Sold by Leading Plumbing Supply Houses

MANUFACTURED BY

W. B. LUCKE, Inc.

Wilmette

Illinois





A FREE SERVICE

**Let Fenestra Engineers help you plan
Industrial Daylighting and Airation
for specific plant needs**

Calculating the exact amounts of daylight and fresh air needed . . . bringing them deep into the interior of the plant . . . these are problems as varied as industrial plants themselves. The answers to those problems can save thousands of dollars by increasing production—decreasing waste.

Choice of window types and decisions on their placement call for detailed engineering study . . . study Fenestra* is equipped to make for you. For more than forty years the Fenestra Department of Engineering Research has been working out solutions to daylighting and airation problems for specific plants.

This is a free service. Send your early plans to Fenestra Engineers . . . let these experts apply their engineering experience on windows to your individual requirements. If you wish, they can work directly with you.

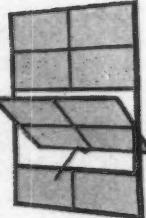
For a full explanation of what this planning will include, mail the coupon, or call your Fenestra Representative (listed in the yellow pages of your telephone directory).

*®

Fenestra
WINDOWS • DOORS • PANELS

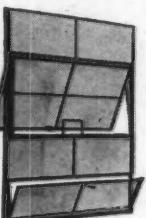
PIVOTED WINDOW

Widely used for an abundance of daylight, fresh air and see-through vision, to improve morale and production efficiency. Combine vertically or horizontally to form entire walls of windows.



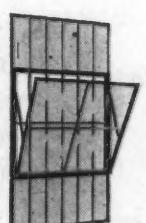
COMMERCIAL PROJECTED WINDOW

Popular for efficient, economical screening or shading—vents do not interfere. Open-out vent serves as a canopy over opening, protecting interior against rain; open-in vent is a built-in wind-guard, shedding water outside.



SECURITY WINDOW

A steel window with integral steel grille to bar prowlers. Passage of material is checked, too. Ideal for first floors, windows bordering fire escapes and windows near roofs of adjoining buildings.



Fenestra Department of Engineering Research
Detroit Steel Products Company, Dept. AR-2
2252 East Grand Blvd.
Detroit 11, Michigan

Please send me further information on your free Industrial Daylighting and Industrial Airation Planning Service, as well as data on Fenestra Windows.

Name _____

Company _____

Address _____



Materials

HILLYARD PRODUCTS—a complete line of floor treatment, maintenance and sanitation materials recommended by leading architects from coast to coast. When you specify any Hillyard product, you guarantee your clients maximum protection on their investment in floors.

Methods

HILLYARD-TRAINED "Maintaineers"—a nation-wide staff of expert floor consultants, schooled to work hand-in-hand with architects. Call the "Maintainer" in your locality. He'll help you in every way possible, including actual job supervision, to get the job done right . . . absolutely without charge or obligation.

Specifications

HILLYARD'S AIA DATA FOLDER—specifies when and where to use each Hillyard product for best results. Condensed in handy, ready-reference style. Keeps clear, concise specifications at your fingertips.

YOURS FOR THE ASKING

Send for your free copy of Hillyard's AIA Data Folder. You'll find it genuinely valuable in your office for quick answers to scores of floor treatment questions.



St. Joseph, Missouri
U. S. A.

NEW GALLAHER Air-Van Power Exhauster

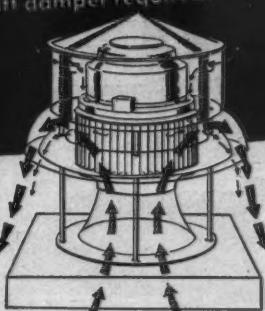
- Motor out of the air stream.
- Completely weatherproof and self-contained—requires no penthouse.
- Positive acting squirrel-cage fan—no backdraft damper required.
- Low installation cost—direct connected.
- CERTIFIED RATINGS.

Pat. 2188741
Pat. Pend.

Low Silhouette for Modern Buildings

No projection above the average parapet to answer the problems of modern architecture. Construction is the heaviest of any device of its kind. Motor out of airstream safely removes explosive and corrosive fumes without danger of motor damage. Motor hood under negative pressure of fresh air passing around motor prevents formation of explosive concentrations. Capacities 100-12,000 CFM. Static pressures to 1 1/4".

For full information contact your Gallaher representative or write The Gallaher Co., 4106 Dodge Street, Omaha.



The GALLAHER Company
Omaha, Nebr.
Owatonna, Minn.



you can
see that

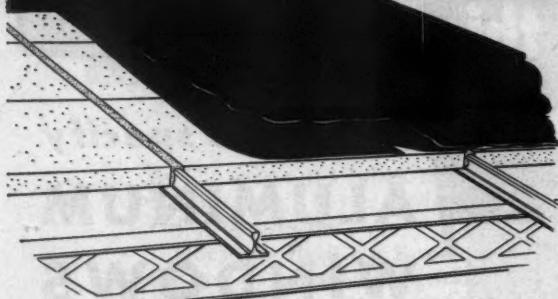
Trinity White
is the whitest
white cement!

You'll get fine results with this extra white cement. It's true Portland Cement made to ASTM and Federal Specifications. If your dealer does not have it, write the office nearest you: Trinity Portland Cement Division, General Portland Cement Co., 111 West Monroe St., Chicago; Republic Bank Bldg., Dallas; 816 W. 5th St., Los Angeles.



Only
KAYLO[®]
ROOF TILE

- INSULATES
- and IS LIGHTWEIGHT
- and IS LOAD BEARING
- and IS NON-COMBUSTIBLE



SIMPLE FAST CONSTRUCTION

Kaylo Roof Tile are laid on sub-purlins or structural steel members or nailed to wood joists. End joints are grouted. Roofing material is applied on tile. No special skills or tools are required, and one man easily handles the 23-lb. tile.

See Sweet's File — or write Dept. N-19 for
sectional sample and complete information

Kaylo Roof Tile is composed of one part inorganic materials and four parts sub-micronic voids . . . formed into a light, but strong wire-mesh-reinforced tile which is a dimensionally uniform 2 $\frac{5}{8}$ x 18 x 36 inches.

The result is a roof-deck material with characteristics no other single material offers—

INSULATION VALUE equal to 1 $\frac{1}{2}$ -in. standard insulating board. No extra insulation needed on normal jobs.

LIGHT WEIGHT—5 lbs. per sq. ft.—permits substantial savings through lighter roof structure and makes it easy to handle and lay.

STRUCTURAL STRENGTH—Will easily carry all normal roof loads with an adequate safety factor.

FIRE PROTECTION—Kaylo Roof Tile is non-combustible, protects against fire for well over 1 hour under standard test conditions.

KAYLO[®]
INSULATING ROOF TILE

Kaylo Division • OWENS-ILLINOIS GLASS COMPANY • Toledo 1, Ohio
SALES OFFICES: Atlanta • Boston • Buffalo • Chicago • Cincinnati • Dallas • Minneapolis • New York • Philadelphia • Pittsburgh • St. Louis • Toledo • Washington

Announcing Century's New Architectural Lighting Catalogue

Century's new Catalogue (part 2) offers the results of wide and comprehensive study in Architectural lighting developments and techniques.

Completing **Century's** 20th year of experience in the design and precision engineering of scientific lighting for stores, showrooms, museums, churches, universities, auditoriums, window displays, hotels, night clubs, terminals, places of entertainment and all architectural purposes.

Detailed information on dimensional and performance data, together with accurate specifications and descriptions of all equipment available on request in addition to Catalogue. Write to:

Century Lighting Inc., 419 West 55th Street, New York 19, N.Y.
626 North Robertson Blvd., Los Angeles 46, Calif.

2
Architectural Lighting

Century

The Name in Lights



INTRODUCTION TO ARCHITECTURAL DESIGN

Donald Atkinson Fletcher • Architect D.P.L.G.

A HANDBOOK FOR

STUDENTS • DESIGNERS • ARCHITECTS • TEACHERS

Dealing with the design process and with problems encountered in designing buildings
Stiff cloth bound • 6" x 9" • 212 pages

For beginners in architecture, this book offers a systematic introduction to design. It states in organized form material in design that is treated orally in the drafting room, but usually at random. Only when this material has been grasped can the study of design become effective. Basic factors in design, selected and paired, are exemplified by common architectural subjects forming eleven short exercises. These are arranged in a typical sequence, in an order suitable for learning. (See review in *Architectural Record*.)

IN USE AS A TEXT

Department of Architecture, Rice Institute
Department of Architecture and Engineering, Hampton Institute
Department of Architectural Drawing and Building Construction
Evening Art School, Pratt Institute

USE COUPON BELOW

Copies of **INTRODUCTION TO ARCHITECTURAL DESIGN** are available at \$7.50 postpaid. Stiff cloth bound. Your order will be handled promptly on receipt of the coupon below.

DONALD A. FLETCHER
Box 1027, Grand Central Station P.O., New York 17, N.Y.
Enclosed find remittance of \$..... for copies of the 212-page book
INTRODUCTION TO ARCHITECTURAL DESIGN at \$7.50 per copy.
In New York City add 2% for Sales Tax

Name (Please print)
Street
City Zone State

Insist
on this
Seal... when you specify
**ALUMINUM
WINDOWS**



This seal assures windows that, when tested by the independent Pittsburgh Testing Laboratory, meet the A.W.M.A. quality specifications for materials, construction, strength of sections, and minimum air infiltration requirements. For complete specs covering "Quality Approved" aluminum windows—double-hung, casement and projected—and names of approved manufacturers, consult Sweet's or write to the address below, Dept. R.

ALUMINUM WINDOW MANUFACTURERS ASSOCIATION
209 Cedar Avenue, Takoma Park, Washington 17, D.C.

"LOOK AT THAT ASBESTOS ROOF! IT'S
SMOOTH-SURFACED, TOO!"



Yes - it's a **Flexstone*** Roof

**Each ply is a flexible
covering of stone!**

- The secret of a Johns-Manville Flexstone Roof is in the *felts*. They're made of fireproof, rotproof, enduring asbestos.

Flexstone Built-Up Roofs won't dry out from the sun . . . need no periodic coating. They're *smooth-surfaced*, too—permit thorough drainage . . . make any damage easy to locate and repair. They are engineered to each job . . . applied only by J-M Approved Roofers.

J-M Asbestos felts are perforated to make application easier . . . give you a smoother job and conform better to irregularities in the roof deck.

Send for Flexstone brochure BU-51A.
Contains complete specifications.
Address: Johns-Manville, Box 290,
New York 16, N. Y. *Reg. U. S. Pat. Off.

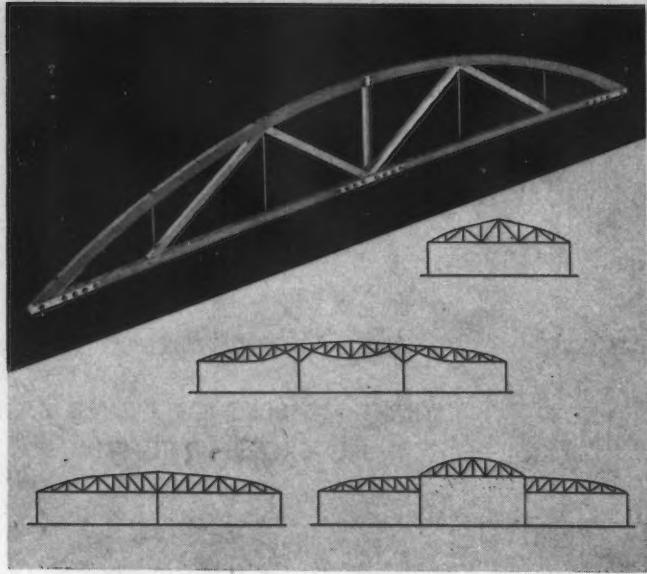


Made of ASBESTOS

Johns-Manville FLEXSTONE* Built-Up Roofs

CORRUGATED TRANSITE* • ACOUSTICAL CEILINGS

DECORATIVE FLOORS • *TRANSITE WALLS • ETC.



TIM-TRUSS Bowstring

...the truss with a future

Attractive in appearance, versatile in application, and requiring little or no maintenance, the Tim-Truss fills the need for a stable, fire-resistive bowstring truss.

MONOCHORD CONSTRUCTION

Chords are glued laminated of structural quality material, thoroughly kiln dried. They will not shrink, check, twist or warp, and camber is maintained without adjustments. Length of chords is restricted only by limitations of shipping and handling, with chord splices either eliminated or greatly reduced in number.

The Tim-Truss is highly fire resistive, due to the dimensions of the one-piece chords. They qualify as heavy timber construction, with resulting favorable fire insurance rates.

ELIMINATES CEILING EXPENSE

Open, streamlined appearance of the Tim-Truss produces handsome wide span areas without ceilings. If desired, however, they may readily be installed.

Your nearest Timber Structures office will gladly give you detailed information on the Tim-Truss; or write us for catalog of roof trusses.

TIMBER STRUCTURES, INC.

P.O. BOX 3722A, PORTLAND 8, OREGON

Offices in Boise, Idaho; Eugene, Oregon; Kansas City, Missouri; Lawrenceville, N.J.; Chicago; Dallas; New York; Seattle; Spokane
TIMBER STRUCTURES, INC. OF CALIFORNIA, Oakland and Sacramento
Local Representatives Coast to Coast

YOURS FREE!

An Invaluable Aid to Intelligent Specification of **INDUSTRIAL** Lighting Equipment



High Light Output, Maximum Lighting Efficiency, Adequate Protection from Glare, Long Life, Low Cost Maintenance . . . all these and many more benefits accrue through the specification of industrial lighting equipment which meet certain minimum quality standards of design, materials and construction.

This new 36 page booklet brings you all RLM specifications, completely revised to include the latest



For your complimentary copy, sent without cost or obligation, address:

RLM STANDARDS INSTITUTE
Suite 827, 326 West Madison Street
Chicago 8, Illinois

3035



I SEE SHADELY HAS A
JOSAM BACKWATER VALVE
INSTALLED IN HIS BASEMENT!



It's no fun to have a basement full of water, mud and debris carried in by backwater from sewers due to heavy rains and floods. There's an easy way to keep your basement dry and free from backwater—install a Josam Backwater Sewer Valve. Cost is so little compared to the protection it provides. Write for Bulletin BWV.



Josam Manufacturing Company
302 Josam Building • Cleveland 13, Ohio

for appearance...



*Simple, unobtrusive design
blends with any architectural treatment.*

for performance



*Adjustment features insure
positive control of air movement.*

Kno-Draft

*...adjustable air diffusers
help solve problems
of both form and function.*

FREE HANDBOOK—Send for FREE copy of new handbook on air diffusion. Complete information on Kno-Draft Adjustable Diffusers and all necessary engineering data to help you create "custom-made" air patterns. Just fill in and mail the coupon.

W. B. CONNOR ENGINEERING CORP.

Air Diffusion • Air Purification • Air Recovery

112 East 32nd Street (CONNOR) New York 16, N.Y.

IN CANADA: Douglas Engineering Co., Ltd., 190 Murray Street, Montreal 3, P.Q.

W. B. CONNOR ENGINEERING CORP.

Dept S-22, 112 East 32nd Street, New York 16, New York

Please send my FREE copy of the new Kno-Draft Handbook on Adjustable Diffusers.

Name.....

Position.....

Company.....

Street.....

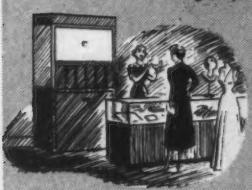
City..... Zone..... State.....

CHRYSLER AIRTEMP

3 Basic Systems to fit every Air Conditioning Need



Central Systems—Suitable for Auditoriums, Theatres, Ballrooms, and all large Public Buildings.



Individual Room Unit—Heats in Winter and Cools in Summer. Automatic control for individual rooms in Hotels, Office Buildings, Apartments and Hospitals.

"Unitemp"—The original "Packaged" air conditioner. Ideal for Stores, Offices, Plants and other commercial applications.

CHRYSLER AIRTEMP manufactures all three basic air conditioning systems—Central, Individual Room Unit and "Unitemp." This means—"the best system to fit each project." That's why leading architects and builders rely on Chrysler Airtemp's unprejudiced recommendations when planning air conditioning.

Highly trained field engineers, working with Chrysler Airtemp regional offices and dealers in principal cities, are available to assist you in selecting the most efficient air conditioning system for your requirements.

The specialized experience and "know-how" of Chrysler Airtemp Engineers—particularly in large construction work—provides a practical approach to heating, air conditioning and ventilating problems.

When desired, Airtemp Construction Corporation—wholly owned subsidiary of Chrysler Corporation—will assume entire responsibility from specification to installation.

You will find, we believe, additional information on Chrysler Airtemp service and products—highly beneficial.

Write today for additional information on Chrysler Airtemp products and services. It should prove helpful.

Chrysler Airtemp

AIR CONDITIONING • HEATING • COMMERCIAL REFRIGERATION
AIRTEMP DIVISION OF CHRYSLER CORPORATION
DAYTON 1, OHIO

EMPLOYMENT OPPORTUNITIES AVAILABLE

Advertising rates on request

Positions Open

WANTED: Architectural Draftsman with several years' experience in architects' offices; capable of fair sketches, working drawings and details. Position leading to association in small, long established office, in a wonderful scenic city. Submit samples of recent work, training, experience, architects worked with, availability, salary expected. Clarence T. Jones, 1102 James Building, Chattanooga, Tenn.

ARCHITECTURAL DRAFTSMEN: for plan layout and detailing. Principally Schools and Hospitals. Well established, progressive office in Kansas City. Ideal working conditions. Permanent for qualified men. Give training, experience, salary expected, and references in first letter. Box 459, *Architectural Record*, 119 W. 40th St., New York 18.

PROGRESSIVE, LONG ESTABLISHED OFFICE: whose practice is varied and includes every type, schools, churches, hospitals, public housing, industrial, commercial and residence work, has immediate need of experienced architect or senior architectural draftsman. Permanent position opportunity. State education, experience, availability, salary and family status. Selmon T. Franklin, 421 Poplar St., Chattanooga, Tenn.

ARCHITECTURAL DRAFTSMEN: Experienced men. Several excellent openings in various parts of the country for experienced Draftsmen & Designers. Good Salaries. Write The Engineering Agency, Inc., (est. 1893), 53 W. Jackson Blvd., Chicago 4, Ill.

ARCHITECTURAL CONSULTANT: nationally known catalog service organization seeks professionally trained young architect. Building materials specifying, sales and marketing knowledge desirable. Give full details of personal and business history. Box 460, *Architectural Record*, 119 W. 40th St., New York 18.

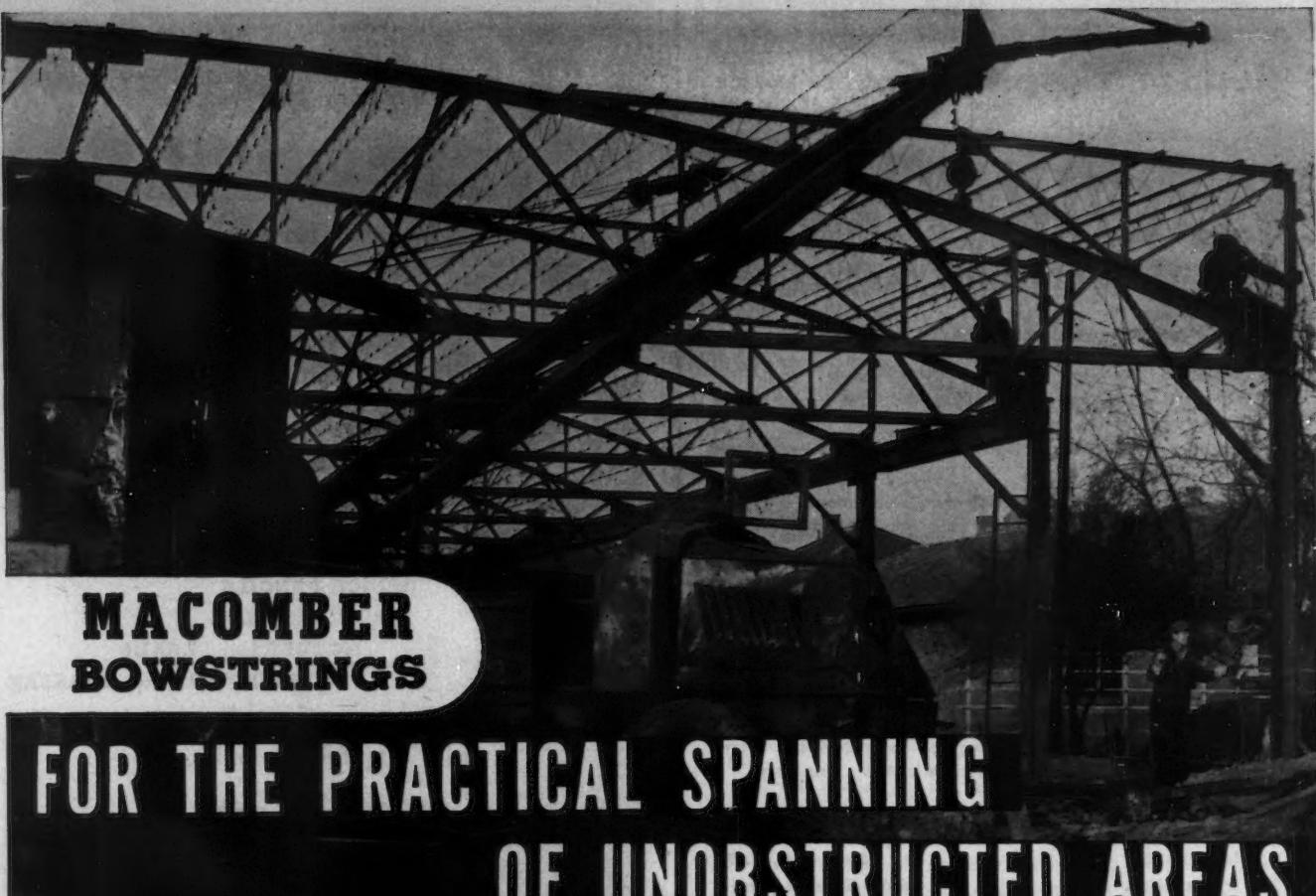
WANTED: Experienced architects or senior draftsmen and specifications writer by midwestern architectural firm engaged in educational planning in several states. Permanent positions under management progressive in both design and personnel relationships. Submit full details as to qualifications. Box 463, *Architectural Record*, 119 W. 40th St., New York 18.

Positions Sought

STRUCTURAL ENGINEER DESIRES TO ESTABLISH CONTACT WITH ARCHITECTS: needing occasional structural design service. Presently registered in Illinois, Indiana, Iowa, Ohio, and Wisconsin. Other registration can be arranged if project warrants. Twenty years experience. Hourly or fee basis. Joseph H. Heuer, Five South Wabash Avenue, Chicago 3, Ill.

SPECIFICATION WRITER: Architectural and engineering general construction. More than 18 years experience. Experienced on hospitals, public housing, schools, office buildings, churches, banks and industrial buildings. Registered Architect. Box 461, *Architectural Record*, 119 W. 40th St., New York 18.

ARCHITECT-EXECUTIVE: Contact man. Architect with broad executive experience in the offices of architects, engineers and contractors. Top firms. Public relations. Contact man for clients and prospective clients. Extensive experience in obtaining new business. Box 462, *Architectural Record*, 119 W. 40th St., New York 18.



MACOMBER BOWSTRINGS

FOR THE PRACTICAL SPANNING OF UNOBSTRUCTED AREAS



FIELD SPLICING BOWSTRINGS

Designers and builders have specified and used Macomber Bowstring Trusses over a 25 year period with enthusiastic approval of these completely standardized roof framing members.

These all-welded steel trusses provide the builder of anything from a 30 foot store to a 180 foot freight terminal with a practical roof framing unit.

Erected on steel columns or masonry piers, these trusses go up smoothly with a minimum of men and equipment. Strut and rod bracing combined with Macomber Roof Purlins result in a strong, rigid frame, adaptable to any type of roof.

OUR ROOF TRUSS CATALOG GIVES YOU COMPLETE DESIGNING AND DIMENSIONAL INFORMATION. WRITE US.
HOME, SCHOOL, COMMERCIAL AND INDUSTRIAL FLOOR AND ROOF SYSTEMS

STANDARDIZED STEEL BUILDING PRODUCTS



MACOMBER • INCORPORATED
CANTON, OHIO

IN CANADA, SARNIA BRIDGE CO., LIMITED, SARNIA, ONT.
IN MEXICO D. F.—MACOMBER DE MEXICO S. A. CEDRO 500

V BAR JOISTS • LONGSPANS • BOWSTRING TRUSSES • STEEL DECK

Reduce Hospital Costs with
Schundler
Vermiculite Aggregates

VERMICULITE CONCRETE AGGREGATE

- (1) In insulating concrete for roof fill insulation gives a monolithic permanent job for less money. Ask in your specifications for an alternate on this and see your savings.
- (2) In concrete floor slabs for insulation and check against summer condensation.
- (3) As a lightweight floor fill reducing dead weight loads.

VERMICULITE PLASTER AGGREGATE

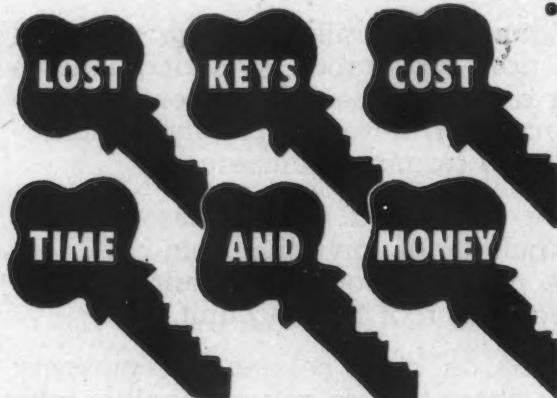
- (1) For warmer plastered walls for patients,—less drafts.
- (2) In acoustical plaster for hospital corridors.
- (3) For fireproofing of steel columns and beams. Ask for this alternate. See your savings.
- (4) In plastering of very large ceiling areas for lighter weight.

Write for descriptive literature on Schundler Vermiculite Products—Concrete Aggregate—Plaster Aggregate—Loosefill—Fesco Board Roof Insulation. Also Rubatex Cold Storage Insulating Hardboard.

F. E. SCHUNDLER & CO., INC.

Joliet, Illinois
504 Railroad St.

Long Island City, N. Y.
46-16 Vernon Blvd.



*That's why every architect should know about MOORE KEY CONTROL!**

You owe it to your client to investigate this modern system of key control. It saves money year in and year out by eliminating expensive repairs and replacement of locks and keys. What's more, it guarantees security, convenience and privacy. No wonder more architects every year now specify Moore Key Control for use throughout schools, institutions, hospitals, hotels... in all factories and buildings where keys are used.

*TELKEE
TRADE MARKS ®

Mail Coupon
today for
Free Booklet

P. O. MOORE, INC., Dept. A 300 Fourth Ave., New York 10, N. Y.
Please send me special architect's manual for my A.I.A. file on MOORE KEY CONTROL.
Name.....
Address.....
City, State.....

KOH-I-NOOR PRODUCTS

The RIGHT pencil for the RIGHT job

Famous for their outstanding characteristics. Whatever is required in pencil performance will be found in our singularly commendable quality lines.

If it's KOH-I-NOOR you can be sure

DRAWING PENCILS

COPYING PENCILS

WRITING PENCILS

CHECKING PENCILS

COLORED PENCILS

OFFICE PENCILS

ART PENCILS

HOLDERS and LEADS

PENHOLDERS and ERASERS

Worlds change but KOH-I-NOOR quality remains



KOH-I-NOOR PENCIL COMPANY, INC., BLOOMSBURY, NEW JERSEY

**NEW LOW GLAZING COSTS!
NEW HIGH GLAZING QUALITY!**

**SPECIFY
TREMGLAZE
MASTIC GLAZING COMPOUND
IN COLORS**

Requires No Painting

Aluminum
Windows

Steel or Wood
Windows

- Specify Tremglaze Aluminum color. It bonds to aluminum, requires no painting—ever. Proven on actual jobs for over ten years. Meets Aluminum Window Manufacturers Association standards.

- Specify Tremglaze yet pay no more for completed window installations than with a putty job. Save on the paint contract; specify—"Paint first—then Tremglaze". Put paint on the window where it belongs—Tremglaze requires no paint. Save on cost of cleaning glass also.

MC-102

Consult your local Tremco Representative or write to:

TREMCO MANUFACTURING CO.
CLEVELAND 4 • TORONTO



Ten Years Ago...

in August, 1939, this concrete test paving was laid in Second Avenue North, Minneapolis. The badly scaled section of roadway in the background was made with regular portland cement. The foreground section, *laid at the same time*, was made with Atlas Duraplastic—the first commercial use of the air-entraining portland cement originated and developed by Universal Atlas.

Both sections, subjected to the severity of ten Minneapolis winters and to heavy applications of de-icing salts, are shown just as they appeared in July, 1949—convincing proof of the characteristic durability of Duraplastic concrete, of its high resistance to freezing-thawing weather and the scaling action of de-icing salts. Longitudinal structural crack shows some ravelling. Note perfect transverse joint.



Today Added Durability and Improved Appearance in structural concrete made with DURAPLASTIC*



Promontory Apartments, Chicago, Ill., nearing completion. Duraplastic used throughout in concrete columns 12 feet deep with network of steel bars and beams. No sign of bleeding or segregation. Contractors report a smooth surface free of blemishes or air-bubbles. Architect: Pace Associates; Structural Engineer: Frank J. Kornacker; Contractor: Peter Hamlin Construction Company—all of Chicago.

Send for new free booklet, "A Decade of Duraplastic Air-Entraining Cement." Write to Universal Atlas Cement Company, (United States Steel Corporation Subsidiary), Chrysler Bldg., New York 17, New York.

From initial paving installations . . . to the first structural job . . . to beautiful, modern structural achievements like the one shown here, architects, engineers and contractors have come to rely more and more on the extra durability and improved appearance of concrete made with Atlas Duraplastic air-entraining portland cement.

In Duraplastic's rapid ten-year growth, its advantages have been applied to all types of mass and structural concrete—for foundations, walls, columns, and floors. It's ideal for slip-form, gunite, stucco and similar uses.

With Duraplastic, less mixing water is needed for a given slump. The resulting mix is more plastic, more workable, more uniform and cohesive. It's easy to place and finish. Water-gain and segregation are reduced. Surface appearance is improved and has higher resistance to the effects of weather-exposure.

For structural concrete needs of today and tomorrow, Duraplastic offers *better concrete at no extra cost*. It provides the precise amount of air-entraining agent interground with the cement for satisfactory field performance. It complies with ASTM and Federal Specifications, sells at the same price as regular cement and calls for no unusual changes in procedure.

OFFICES: Albany, Birmingham, Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

*"Duraplastic" is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Company.

AR-D-94

ATLAS DURAPLASTIC

AIR-ENTRAINING PORTLAND CEMENT

MAKES BETTER CONCRETE AT NO EXTRA COST

TRADE MARK REG
U. S. PAT. OFF.

A UNIVERSAL ATLAS PRODUCT

"THE THEATRE GUILD ON THE AIR"—Sponsored by U. S. Steel Subsidiaries—Sunday Evenings—NBC Network

PERMANENT

There is no method of hanging windows so trouble-free as the cord, weight and pulley method — it has been time tested and proven in service. No adjustments, no metal to metal contacts — therefore no noise, no early replacements, nothing to get out of order. Proper installation using Spot Sash Cord means a lifetime of service, reasonable installation cost and avoidance of expensive replacement.

Specify Spot Sash Cord — Identified by the colored spots, our trademark (Reg. U. S. Pat. Off.)

SPOT sash CORD



SAMSON CORDAGE WORKS • BOSTON

Walls of Beauty INSIDE AND OUTSIDE —AT LOW COST!



EASY TO CLEAN.
WILL NOT CRACK,
PEEL OR CHIP.

Permits modernization of old buildings without introducing structural stress problems. Easy to apply, with a decided saving in labor hours. Complete information on request.

MAKE FRIENDS—MAKE MONEY WITH ALUMITILE

METAL TILE PRODUCTS, INC.
DEPARTMENT 202, HASTINGS, MICHIGAN

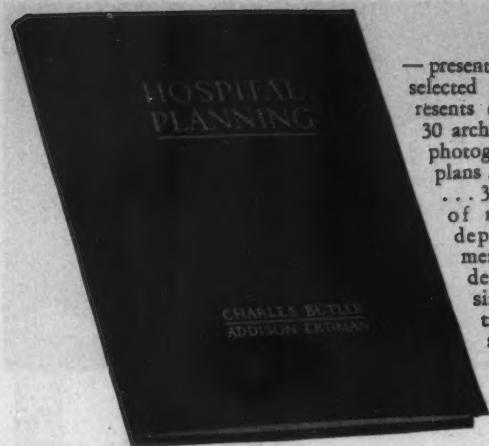
Send me additional information regarding alumitile.

I am Distributor Dealer Architect Contractor.

NAME _____ FIRM _____

ADDRESS _____ ZONE _____

CITY _____ STATE _____



— presents the plans of 51 selected hospitals . . . represents creative efforts of 30 architects. Includes 32 photographs . . . 11 site plans . . . 187 floor plans . . . 38 special unit plans of rooms, wards, departments . . . numerous construction details. 236 pages, size 8½ x 11, illustrated and indexed, stiff cloth binding. Price \$15.

AGAIN AVAILABLE

HOSPITAL PLANNING

by CHARLES BUTLER, F.A.I.A
and ADDISON ERDMAN, A.I.A.

"HOSPITAL PLANNING," the first important textbook on the subject in a generation, offers a complete treatise on hospital architecture . . . gives a cross-section of the best in hospitals produced in this country within recent years . . . and provides exhaustive study and examination of new trends.

Messrs. Butler and Erdman, working as a team of specialists, have directed a nationwide, on-premise survey of hospital planning — in theory, in everyday practice and under the stress of unprecedented demands and emergencies. The most significant examples of hospital planning have been studied, assembled, abstracted and dramatized.

This 236-page volume is for architects and hospital groups alike. It will help architects and engineers to learn of the great advances made in hospital architecture . . . to acquire a working knowledge of hospital procedure . . . to avoid the many pitfalls which beset the hospital planner. It will help hospital administrators to visualize their problems in terms of community needs . . . show them how others are meeting similar problems. Price \$15, postage prepaid.

BOOK DEPARTMENT ARCHITECTURAL RECORD
119 West 40th Street, New York 18, New York

Enter my order for . . . copies of "Hospital Planning" by Charles Butler and Addison Erdman, at the price of \$15. I enclose payment of \$. . .

For New York City Delivery add 30 cents for Sales Tax — \$15.30 in all.

Name . . .

Address . . .

City . . . Zone . . . State . . .

Now INSULATED GROUND LEVEL FLOORS CAN
BE INSTALLED EASILY AND ECONOMICALLY
with NEW INSULATING CONCRETE



Here's How **ZONOLITE***
Vermiculite Concrete Gives
You EXTRA ADVANTAGES

Architects and contractors are discovering a new type ground level floor that insulates against heat loss into the ground and is free from condensation the year around. This new floor is made of Zonolite Vermiculite Concrete, a revolutionary form of insulation.

Floors made with Zonolite Vermiculite are low in heat capacity, permitting better control of room temperature by minimizing heat lag—a real advantage when heating rooms. This advantage, combined with its insulating qualities, makes Zonolite Vermiculite Concrete the ideal base for radiant heat pipes installed in the floor.

Millions of square feet of Zonolite Concrete have been installed in large scale housing projects, industrial structures, college dormitories and many other type buildings. A fireproof Zonolite Concrete floor increases the building value and makes the property far more salable.



**ZONOLITE
COMPANY**

135 South La Salle Street
Chicago 3, Illinois

MAIL COUPON
FOR DETAILS

Zonolite Company
Dept. AR-20, 135 S. LaSalle St., Chicago 3, Ill.
Please send me FREE booklet that tells all the advantages of
Zonolite Insulating Concrete for floor construction.

Name.....

Address.....

City..... State.....

*Zonolite is a registered trademark of Zonolite Company

INDEX TO ADVERTISEMENTS

a Accurate Metal Weatherstrip Co., Inc.	178
abe Adam, Frank Electric Co.	165
Aerofin Corporation	232
Air Devices, Inc.	237
a Airtemp Division	246
Alan Wood Steel Co.	30
a Alberene Stone Corporation	20
ab Allmetal Weatherstrip Co.	52
abe Aluminum Window Manufacturers' Assn.	242
ae American Abrasive Metals Co.	188
a American Air Filter Company, Inc.	235
ae American Blower Corporation	63
a American Brass Company	77
ab American-Clean Tile Company	51
ae American Radiator & Standard Sanitary Corp.	63-72-73
ab American Telephone & Telegraph Co.	32
ab American Welding & Mfg. Co.	175
Anacondo Copper Mining Co.	77
e Anemostat Corp. of America	206
a Art Metal Company	141
ab Associated Plywood Mills, Inc.	47
Associated Products, Inc.	230

Baltimore Porcelain Steel Corp.	75
ce Barber-Colman Company	194
a Beckley-Cardy Company	78
ab Bell & Gossett Company	173
ab Bell Telephone System	32
a Bethlehem Steel Company	62-225
Bigelow Rugs & Carpets	74
Blue Ridge Sales Division	36
Books	204-210-250
e Bradley Washfountain Co.	182
a Brusco Manufacturing Co.	31
ab Bruce, E. I. Co.	27
ce Burl Mfg. Co.	222
Byers, A. M. Co.	4

ab Cabot, Samuel, Inc.	154
a Cambridge Tile Mfg. Co.	83
Carew Steel Products Corp.	204
ae Carrier Corporation	42
ab Coco Steel Products Corporation	2-3
abe Colatex Corporation	203
Century Lighting, Inc.	242
Chrysler Corporation	246
Connor, W. B. Engineering Corp.	245
Corning Glass Works	69
Crane Co.	187
ab Cuprinol Division	230
Curtis Companies Service Bureau	159
Cutler Mail Chute Co.	238

ab Darworth, Incorporated	230
a Day-Brite Lighting, Inc.	201
abe Detroit Steel Products Company	41-239
Dicks-Pontius Co.	150
Dodge, F. W. Corporation	220
Dravo Corporation	182
Durant Insulated Pipe Co.	230

Eastman Kodak Company	149
Electric Storage Battery Co.	70
Employment Opportunities	246
Faber, Eberhard	196
ae Facing Tile Institute	57
Federal Seaboard Terra Cotta Corp.	236
Fitzgibbons Boiler Company	142
Fletcher, Donald A.	242
abe Flinkote Company	2nd Cover-33
Formica Co.	254
Fremont Rubber Company	59
ab Frigidaire Air Conditioning	54

Gallagher Company	240
ab General Electric Co.—Home Bureau	16 to 19
General Electric Co.—Lamps	212-213
General Electric Co.—Wiring	197
General Portland Cement Co.	240
Glynn-Johnson Corp.	144
Grinnell Company, Inc.	46
Guth, Edwin F. Co.	48-49

Heger, C. & Sons Hinge Mfg. Co.	207
---------------------------------	-----

ae Hauserman, E. F. Company	43
Haws Drinking Faucet Co.	234
Haynes Products Co.	224
ab Heaterlair, Inc.	181
Hillyard Chemical Co.	240
Holophane Company, Inc.	191
ab Homasote Company	238
Home Owners' Catalogs	220
Hope's Windows, Inc.	58
Horn Brothers Company	152
House & Garden	218
abe Hunter Fan & Ventilating Co., Inc.	176

a Imperial Brass Mfg. Co.	14
Infra Insulation, Inc.	13
ae Inland Steel Company	168
ab Insulite Division	234
International Nickel Company, Inc.	157

a Jackson & Church Co.	3rd Cover
Jamestown Metal Corp.	226
Jenkins Bros.	25
ae Johns-Manville	243
Johnson, John A. & Sons, Inc.	6-7
ae Josam Mfg. Co.	244

ab Kaiser Aluminum & Chemical Sales, Inc.	200
Kawneer Company	184-185
ae Kaylo Division	241
Kennedy, David E., Inc.	167-233
Keweenaw Mfg. Co.	172
Kinetic Chemicals, Inc.	64-65
Koh-I-Noor Pencil Co., Inc.	248
Kohler Co.	231
ab Kwikset Locks, Inc.	8

a L. C. N. Closers, Inc.	155
--------------------------	-----

b Laclede Steel Company	228
-------------------------	-----

Lees, James & Sons	62
--------------------	----

abe Libbey-Owens-Ford Glass Co.	36-199
---------------------------------	--------

Litecontrol Corporation	233
-------------------------	-----

Lone Star Cement Corporation	1
------------------------------	---

Lowell Metal Products Corp.	224
-----------------------------	-----

a Lucke, W. B., Inc.	238
----------------------	-----

------	--

a Macomber, Incorporated	247
--------------------------	-----

ae Mahon, R. C. Company	53
-------------------------	----

ae Maple Flooring Manufacturers Assoc.	68
--	----

a Marble Institute of America, Inc.	50
-------------------------------------	----

ab Marsh Wall Products, Inc.	171
------------------------------	-----

Masland Duraleather Co.	52
-------------------------	----

Medart, Fred Products, Inc.	39
-----------------------------	----

Medusa Portland Cement Co.	193
----------------------------	-----

ab Mengel Company	55
-------------------	----

abe Mesker Brothers	60-61
---------------------	-------

ab Metal Tile Products, Inc.	250
------------------------------	-----

Michaels Art Bronze Co.	166
-------------------------	-----

ae Mills Company	71
------------------	----

ab Minneapolis-Honeywell Regulator Co.	84
--	----

ab Minnesota & Ontario Paper Co.	234
----------------------------------	-----

Minwax Company	198
----------------	-----

Moore, Goodloe E., Inc.	222
-------------------------	-----

Moore, P. O., Inc.	248
--------------------	-----

ae National Electric Products Corp.	37
-------------------------------------	----

National Gypsum Company	76
-------------------------	----

National Sanitary Supply Assoc.	236
---------------------------------	-----

National Terrazzo & Mosaic Assoc.	190
-----------------------------------	-----

New Castle Products	236
---------------------	-----

Norton Company	195
----------------	-----

Nutone, Inc.	24
--------------	----

------	--

O'Marrow W. D. & Co.	228
----------------------	-----

ae Otis Elevator Company	148
--------------------------	-----

ae Owens-Illinois Glass Co.	241
-----------------------------	-----

------	--

abe Pittsburgh Plate Glass Company	147-208-209
------------------------------------	-------------

abe Pittsburgh Steel Products Co.	151
-----------------------------------	-----

Ponderosa Pine Woodwork	164
-------------------------	-----

------	--

abe Pittsburgh Sheet Glass Co.	152
--------------------------------	-----

Pittsburgh Zinc Co.	153
---------------------	-----

Rheem Manufacturing Co.	154
-------------------------	-----

Schoellkopf, Inc.	155
-------------------	-----

Severud, Inc.	156
---------------	-----

Shaw, J. C. & Son Co.	157
-----------------------	-----

Stearns & Foster Co.	158
----------------------	-----

Stevens, J. C. & Son Co.	159
--------------------------	-----

Talbot, J. C. & Son Co.	160
-------------------------	-----

Talbot, J. C. & Son Co.	161
-------------------------	-----

Talbot, J. C. & Son Co.	162
-------------------------	-----

Talbot, J. C. & Son Co.	163
-------------------------	-----

Talbot, J. C. & Son Co.	164
-------------------------	-----

Talbot, J. C. & Son Co.	165
-------------------------	-----

Talbot, J. C. & Son Co.	166
-------------------------	-----

Talbot, J. C. & Son Co.	167
-------------------------	-----

Talbot, J. C. & Son Co.	168
-------------------------	-----

Talbot, J. C. & Son Co.	169
-------------------------	-----

Talbot, J. C. & Son Co.	170
-------------------------	-----

Talbot, J. C. & Son Co.	171
-------------------------	-----

Talbot, J. C. & Son Co.	172
-------------------------	-----

Talbot, J. C. & Son Co.	173
-------------------------	-----

Talbot, J. C. & Son Co.	174
-------------------------	-----

Talbot, J. C. & Son Co.	175
-------------------------	-----

Talbot, J. C. & Son Co.	176
-------------------------	-----

Talbot, J. C. & Son Co.	177
-------------------------	-----

Talbot, J. C. & Son Co.	178
-------------------------	-----

Talbot, J. C. & Son Co.	179
-------------------------	-----

Talbot, J. C. & Son Co.	180
-------------------------	-----

Talbot, J. C. & Son Co.	181
-------------------------	-----

Talbot, J. C. & Son Co.	182
-------------------------	-----

Talbot, J. C. & Son Co.	183
-------------------------	-----

Talbot, J. C. & Son Co.	184
-------------------------	-----

Talbot, J. C. & Son Co.	185
-------------------------	-----

Talbot, J. C. & Son Co.	186
-------------------------	-----

Talbot, J. C. & Son Co.	187
-------------------------	-----

Talbot, J. C. & Son Co.	188
-------------------------	-----

Talbot, J. C. & Son Co.	189
-------------------------	-----

Talbot, J. C. & Son Co.	190
-------------------------	-----

Talbot, J. C. & Son Co.	191
-------------------------	-----

Talbot, J. C. & Son Co.	192
-------------------------	-----

Talbot, J. C. & Son Co.	193
-------------------------	-----

Talbot, J. C. & Son Co.	194
-------------------------	-----

Talbot, J. C. & Son Co.	195
-------------------------	-----

Talbot, J. C. & Son Co.	196
-------------------------	-----

Talbot, J. C. & Son Co.	197
-------------------------	-----

Talbot, J. C. & Son Co.	198
-------------------------	-----

Talbot, J. C. & Son Co.	199
-------------------------	-----

Talbot, J. C. & Son Co.	200
-------------------------	-----

Talbot, J. C. & Son Co.	201
-------------------------	-----

Talbot, J. C. & Son Co.	202
-------------------------	-----

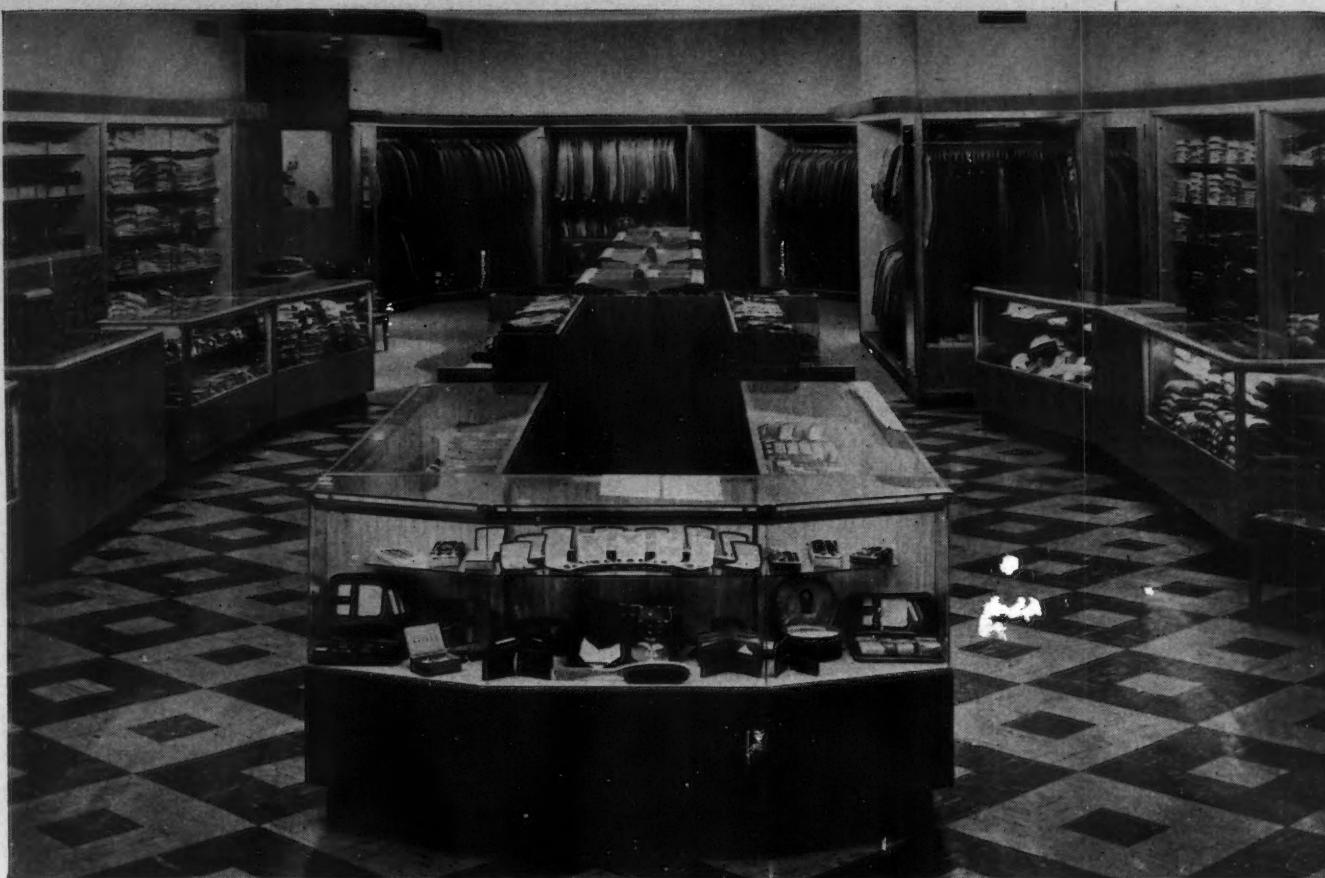
Talbot, J. C. & Son Co.	203
-------------------------	-----

Talbot, J. C. & Son Co.	204
-------------------------	-----

Talbot, J. C. & Son Co.	205
-------------------------	-----

Talbot, J. C. & Son Co.	206
-------------------------	-----

Talbot, J. C. & Son Co.</



KENTILE FLOORS suit every type of store

**Unlimited variety of design effects with this
low-cost, long-wearing flooring.**

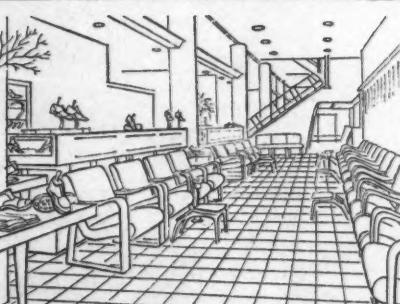
Kentile's 23 colors . . . plus feature strips and special inserts . . . give wide latitude for design effects. This floor blends with any type of interior . . . and lends itself particularly well to open front store design.

Yet for all its decorative appeal, Kentile is outstandingly low priced and famous for resistance to wear. Despite constant foot traffic Kentile keeps the fresh attractive appearance that builds business for the retailer. Cleaning is a simple matter with this smooth-surfaced, dirt-resistant asphalt tile. Colors go through the material—can't wear off.

Kentile can be installed on any smooth firm underfloor—no expensive sub-base necessary. You can specify it for use on concrete below grade or on sound double wood floors with top tongue boards not over 3" wide.

KENTILE SIZES FOR EVERY INTERIOR. Kentile is made in 9" x 9" squares. Also in special sizes—3" x 3", 3" x 6", 4" x 4", 4 1/4" x 4 1/2", 4 1/2" x 9" and diagonal tile of all sizes. Standard Kentile is 1/8 inch thick with 3/16 inch also available.

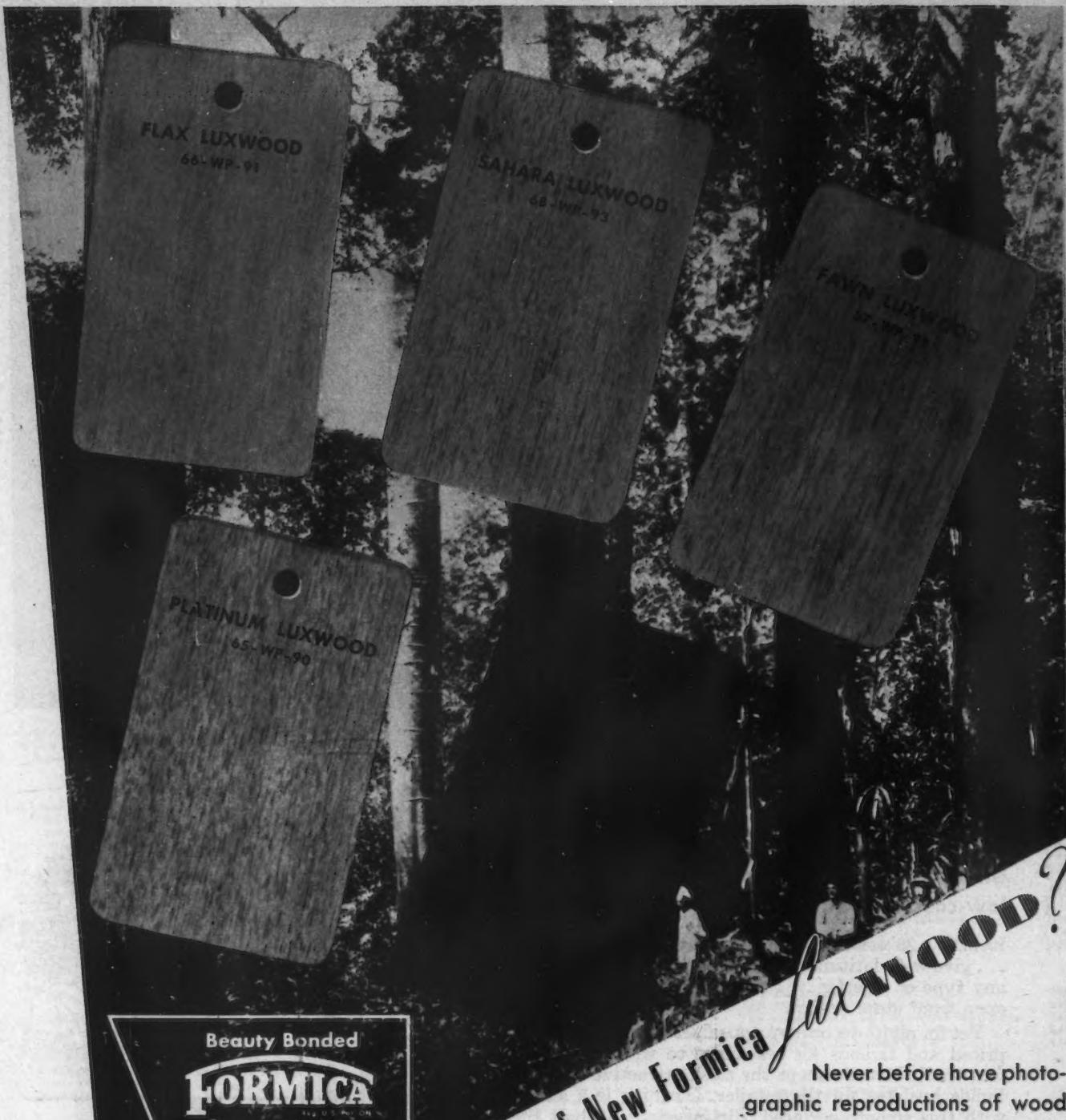
DAVID E. KENNEDY, INC., 58 Second Avenue, Brooklyn 15, N. Y.
350 Fifth Ave., New York 1, N. Y. • 705 Architects Bldg., 17th and Sansom St.,
Philadelphia, Pa. • 1211 N.B.C. Bldg., Cleveland 14, Ohio • 225 Moore St., S.E.,
Atlanta 2, Ga. • Kansas City Merchandise Mart Inc., 2201-5 Grand Ave., Kansas
City 8, Mo. • 1440 11th St., Denver 4, Colo. • 4532 South Kolin Ave., Chicago 32,
Ill. • 1113 Vine St., Houston 1, Texas • 4501 Santa Fe Ave., Los Angeles 58,
Calif. • 95 Market St., Oakland, Calif. • 452 Statler Bldg., Boston 16, Mass.



KENTILE®

The Permanently Beautiful
Asphalt Tile





Would You Like Samples of New Formica Luxwood?



Never before have photographic reproductions of wood grains been so authentically reproduced in a decorative laminate. Yet this startling realism of Formica Luxwood is available at the same low cost as you have been paying for Formica standard color patterns.

With Luxwood you can count on carefully controlled and consistent coloration. There is no matching problem even for additions at later dates.

The five grains illustrated here are the selection of Brooks Stevens Associates, noted designers, and represent present trends in consumer preference. Luxwood is available in standard and cigarette-proof grades, in satin or polished finish.

If you would like free samples of Luxwood, write Formica, 4632 Spring Grove Ave., Cincinnati 32, Ohio.

